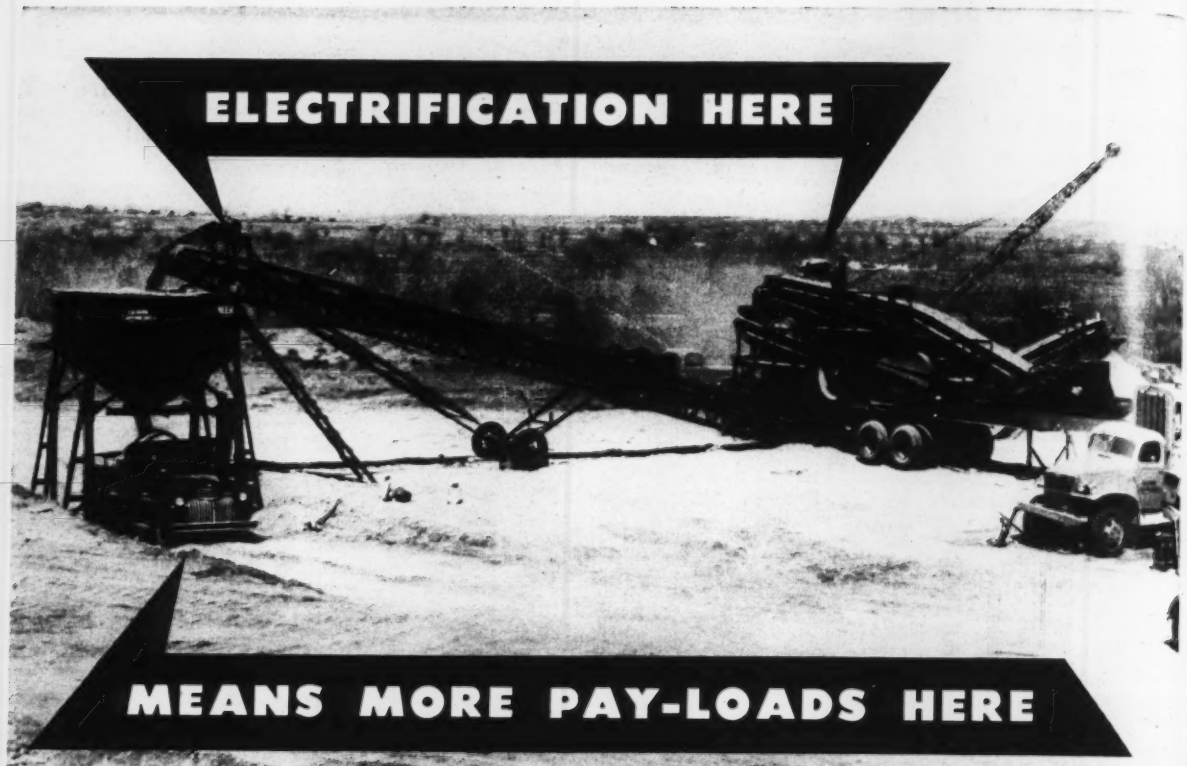
ENGINEERING NEWS-RECORD

gh in the mountains of Colorado, 1,500,000 yards of fill are being placed for Granby Dam



That's What Pioneer Engineering Works Was Shooting For... And Accomplished...In This New Diesel-electric Gravel Plant

Pioneer engineers well know the inherent advantages of electric drives on portable construction equipment. By replacing mechanical-drive belts and clutches with electric gear-motors and control they secured these significant improvements in their new 46-VE crushing, screening and loading plant:

1. **MORE ACCEPTABLE GRAVEL FASTER . . . because of accurate electric control of plant components.**
2. **REDUCED MAINTENANCE COSTS AND FEWER SHUT-DOWNS . . . because fewer mechanical parts and mechanisms are required.**
3. **INCREASED PORTABILITY AND MANEUVERABILITY . . . because over-all width, height and weight are considerably reduced.**
4. **GREATER SAFETY FOR OPERATING PERSONNEL . . . because many belts, pulleys and other extensions are eliminated.**

All of these advancements add up to more acceptable gravel produced in each working day . . . more pay-loads per month. G-E motors and control, properly co-ordinated by G-E engineers, are ready to do a similar job for you on your construction tools or equipment. Why not consult your General Electric representative today and learn how electrification can produce a *better product at lower cost? General Electric Company, Schenectady 5, N. Y.*

G-E totally enclosed gear-motor similar to those used on gravel plant shown above.

G-E full-voltage magnetic motor starter with overload and undervoltage protection, used with above gear-motor.

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BETTER PRODUCT • LOWER COST

News of the Week

ENGINEERING NEWS-RECORD • DECEMBER 5, 1946 • VOLUME 137 • NUMBER 23

Big flood-control projects to go ahead with new funds

Raising of ceiling on Army Engineer construction will permit awarding main contracts on projects held in abeyance under President's curtailment orders

Because of the $70,000,000 increase announced last week (*ENR* Nov. 28, vol. p. 703) on the ceilings on the expenditure during the present fiscal year on civil works construction by the U. S. Army Engineers, the corps will be able to award contracts for considerable additional construction on several large projects already underway. In addition, it may be possible to start some entirely new jobs. Planning and investigations will also go forward at a greater rate than appeared possible a few weeks ago.

The new increases consists of $55,000,000 for flood-control construction and $15,000,000 for maintenance work for rivers and harbors operations. These increases raise the ceiling on flood control construction to $190,000,000. This total compares with an original limit of $95,000,000 set by the President early in August, this ceiling having been stepped up in October by $40,000,000 (*ENR* Oct. 31, vol. p. 561). The new ceiling on rivers and harbors work is $105,000,000. No increase was granted for this type of work in October. However, the revision announced last week is only for maintenance work and an increase for new rivers and harbors construction may be announced soon.

Bids on Clark Hill work

In view of the new increases, the Corps of Engineers already has announced that bids will be opened this year for Clark Hill Dam on the Savannah River above Augusta, Ga. The Augusta, Ga., sub-office will open bids Dec. 11 for the west embankment of this project and for the stream diversion work. Bids for the main part of the dam will be opened Jan. 6. This project, which is for flood control, navigation and power, will cost over $35,000,000.

Bull Shoals Dam on the White River in Arkansas is another big development that is sure to go forward. In August when the President issued his curtailment order a bid of about $26,000,000 was pending for construction of the dam and this contract may now be awarded to the several contractors known as the White River Constructors Co., Houston, Texas, which had submitted the low bid.

The access road and railroad construction, erection of the field offices, and clearing operations are already going ahead for the Bull Shoals project.

Construction of Buggs Island reservoir on the Roanoke River 18 miles upstream from the Virginia-North Carolina state line will also go ahead, and bids are expected to be opened soon for the dam itself. Site clearing, the access road work, and construction of the field offices is already underway. Total cost of the project is estimated at more than $30,000,000. A combination earth-fill and concrete gravity dam about 150 ft. high will be built.

In Texas, Whitney Dam on the Brazos River above Waco will go forward. The Texas State Highway Department will carry out the necessary highway relocation work and the U. S. Army Engineers will have charge of dam construction. A plain gravity dam of about 155 ft. maximum height with earthfill sections at either end is planned for flood control and power production, a total generating capacity of 57,000 kw. to be installed.

More work on the Missouri

Garrison and Fort Randall dams are two large projects on the main stem of the Missouri River for which additional construction contracts will be awarded. The Garrison project is to be the largest rolled-fill dam in the world and will require 75,000,000 cu. yd. of embankment, or more than four times the largest rolled-fill dam constructed to date (*ENR* June 13, vol. p. 920). Much work is already underway on this project, including access highways and a railroad, a construction bridge across the Missouri, and the village to house the workers building the dam.

At Fort Randall, the work is in much the same status. This project is located downstream from Garrison Dam in South Dakota near the town of Fort Randall.

Cherry Creek Dam, south of Denver, Colo., on Cherry Creek, is another project on which work can now be expedited. One excavation contract is already underway and it may be possible to award soon a contract for the dam itself, which will consist of an earthfill about 140 ft. high and 14,000 ft. long to create a reservoir of 95,000 acre-ft. capacity.

Large going projects in Oklahoma that can be stepped up include Fort Gibson Dam on the Neosho River, Wister Dam on the Poteau River, Hullah Dam in the Verdigris River basin, and Canton Dam on the North Canadian River above Oklahoma City. Considerable work has been done on all of these jobs and the new ceilings will permit restoration of the original schedule.

Vermont work to go ahead

One fairly good size New England project—Union Village Dam now under construction on the Ompompanoosuc River—will be continued. The contract for this Vermont structure has already been awarded and the project can now go ahead as originally scheduled.

In Oregon, some work will also be possible on the Detroit reservoir, which is a part of the Willamette River flood-control program and is expected to cost over $28,000,000, and on Lookout Point Reservoir. The last job is estimated to cost more than $19,000,000. Some highway relocation work will be required for the Detroit Reservoir and at the Lookout Point job, relocation of the Southern Pacific Ry. will be completed.

Contracts may also be awarded early in 1947 for Dorema Reservoir on the Row River in Oregon, which may cost above $4,000,000. An earthfill dam 145 ft. high and 4,650 ft. long is planned.

NEWS IN BRIEF

In telegraphic form, here are latest news developments on the engineering and construction front during the week.

Construction — Princeton University, *Princeton, N. J.*, has announced plans for a public and international affairs building to cost $1,500,000 . . . Construction employment in *New England* reached a peak of 120,000 workers in September . . . Estimated expenditures for construction in *N. Y. State* during the first nine months of this year were $409,000,000 . . . Gulf Oil Corp. has awarded a contract to The Lummus Co. for a $3,500,000 refinery at Girard Point, *Philadelphia, Pa.* . . . CPA has approved a $9,700,000 rayon yarn plant for the Celanese Corp. at *Rock Hill, S. C.* . . . Plans are completed for public works in *Indiana* totalling $86,000,000 . . . Bids will be received Dec. 16 for a 5-story hospital at *Yakima, Wash.*, to cost about $1,250,000 . . . Pennsylvania has awarded $577,510 of contracts for work on a new navigation school near *Morrisville, Pa.* . . . Dykes Building Co., New York, was low bidder at $4,497,700 for five airplane hangars at *Gravelly Point, Va.* . . . *Chester, Pa.*, has plans for a $9,000,000 dam to be built at *Pine Grove, Pa.*

Highways—N. J. State Highway Department has a $12,000,000 development program for the counties of *Camden, Gloucester and Salem* . . . *Delaware* State Highway Department has plans under way for a $2,000,000 viaduct near *Claymont, Del.* . . . In *Oklahoma* 352 state projects are under construction to cost about $24,700,000 . . . Work has started on twin bridges at *Three Rivers, Que.*, on the Montreal-Quebec highway No. 2 . . . About 112 miles have been added to the *Georgia* highway system to make a total of 14,013 miles . . . About $2,000,000 will go into the 1947 budget of *New Orleans, La.*, for paving. . . . The *Tennessee* highway department estimates it needs $2,000,000 a year for three years to repair roads. . . . *Charlotte, N. C.*, is planning tunnels to cost $2,600,000 to provide parking space under streets for 1,000 cars.

Housing — Following developments have been announced: *Philadelphia, Pa.*, Dorsey Construction Co., $1,500,000; B. N. Richter, $1,000,000; Thos. Kelly & Sons, $1,000,000 . . . Trenton Homes, *Trenton, N. J.*, $1,000,000 . . . Jonathan Woodner Co., *Upper Darby, Pa.*, $5,000,000 for two developments . . . Woodworth & Co., *Tacoma, Wash.*, $1,000,000 for 103 homes . . . A total of 4,693 homes and apartment units are under construction in *Seattle, Wash.* according to the NHA . . . In *Canada* 5,000 low-rent housing units have been provided this year.

Water supply and sewers—Bids will be taken shortly for a $450,000 sewage treatment plant in *Upper Dublin Township, Pa.*, and a similar one in *Abington Township* . . . *Morrisville, Pa.*, is having working drawings made for a sewerage system and disposal plant . . . *Lewes, Del.*, has plans under way for storm sewers to cost $114,000 . . . A sewer system at *Sunnyside, Wash.*, and a treatment plant at *Prosser, Wash.*, each to cost $140,000 are being planned . . . A total of $620,000 in bonds will be sold for a water system at *Gatlingburg, Tenn.* . . . Six manual-type water filters abandoned for the last 20 years, are being reconditioned at *Winston-Salem, N. C.* to tide the city through a threatened water shortage . . . Plans are being made at *Chapel Hill, N. C.*, for a new sewer system, pipe lines and disposal plant to cost about $400,000, money to come from a bond issue . . . Engineers estimate that a new sewerage system for *Quincy, Ill.*, would cost more than $4,000,000 . . . A new metropolitan district sewer board will soon take over all sewer operation and repair at *Louisville, Ky* . . . A project calling for 2½ miles of 12-in. water line to supplement service at *Tulsa, Okla.*, will be submitted soon to the local board of commissioners . . . The federal government is prepared to contract with *Warren, Ohio*, for a domestic water supply from Mosquito Creek reservoir. . . . *Abington, Pa.*, awarded $404,000 sewer contracts. . . . *Olympia, Wash.*, has awarded contracts of $1,300,000 for 7¾ miles of concrete pipeline, pumping plant, reservoir and valve house at McAllister Springs project, basic source of water. . . . *Philadelphia, Pa.*, has awarded contracts for sewers amounting to $486,686.

THE COVER PICTURE

Five miles north of Granby, Colo., under the towering peaks of the Rocky Mountains, heavy earthmoving equipment is pouring some 1,500,000 yards of clay and gravel fill into what will be Granby Dam — a part of the Colorado-Big Thompson Project. When completed, the dam will store more than 482,000 ac. ft. of water for irrigation and power.

Earthmoving operations, started in the spring of this year, are scheduled for completion late in 1948. The work is being handled for the U. S. Bureau of Reclamation by the Hesser Construction Co., of Greeley, Colo.

Photo by R. G. LeTourneau Co.

A $20 million bond issue too small for S. F. airport

Last year's $20,000,000 bond issue for expansion of the San Francisco Municipal Airport will buy only $15,000,000 worth of airport with this year's higher costs, Airport Manager Bernard Doolin reported, and a CAA loan may have to be sought to complete financing.

Doolin said that in order to complete the airport, San Francisco must put itself into "pawn" financially and accept federal control by acquiescing to terms set by the federal government in its recently-announced airport promotion program.

Canadian housing falling short of 1946 goal

On Nov. 20, C. D. Howe, Canadian Minister of Reconstruction, indicated in a radio address that the original dominion program of 60,000 completed houses in 1946 will not be met in full. According to the best available information, he said, between 50,000 and 55,000 units will be completed this year.

Failure to meet the objective Mr. Howe attributed to interruptions in the flow of building materials caused by strikes in key industries last summer.

The government will continue to direct materials into house building by the use of priorities and directives, but curtailment of non-residential construction is not planned.

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Bid opening scheduled for many VA hospitals

Although progress to date has been slow, bids are now being received and during the next few months the U. S. Army Engineers should go forward at a good rate on the large hospital program being carried out for the Veterans Administration. Architect-engineer contracts have already been awarded by the Corps for 50 VA hospitals and about seven others are under negotiation.

Only two construction contracts, one for construction of a 418-bed general-medical hospital at Providence, R. I., to be built by E. Turgeon Construction Co., under a $4,600,000 contract, and a 300-bed general-medical hospital at Sioux Falls, to be constructed by Henry Carlson of Sioux Falls and Lovering Construction Co. of St. Paul for $3,777,000, have been awarded to date by the Army Engineers.

On Nov. 22 bids were opened for a 150-bed general medical unit at Minot, N. D., and on Nov. 26 the Corps opened bids on a 150-bed structure at Grand Junction, Colo. All bids were rejected on both of these projects because they proved to be much higher than the engineer's estimates. It has been revealed that the Corps will attempt to negotiate a contract with the lowest bidders on each project.

A bid opening for the construction of a 1,984-bed neuropsychiatric hospital to be located at Peekskill, N. Y., will be held Dec. 23.

In the first quarter of 1947 the Army plans to award six contracts for veterans hospitals. These projects, with the number of beds planned for each, are: Brooklyn, N. Y., 1,000; Wilmington, Del., 300; Altoona, Pa., 200; Beckley, W. Va., 200; Miles City, Mont., 100; and Fresno, Calif., 250.

During the second quarter of 1947 the Corps will open bids on the following projects: West Haven, Conn., 900 beds; Manchester, N. H., 150; Albany, N. Y., 1,000; Buffalo, N. Y., 1,000; Newark, N. J., 1,000; Erie, Pa., 200; Harrisburg, Pa., 200; Wilkes Barre, Pa., 475; Baltimore, Md., 300; Clarksburg, W. Va., 200; Tallahassee, Fla., 200; Americus, Ga., 250; Greenville, S. C., 200; Chattanooga, Tenn., 500; Louisville, Ky., 750; Grand Rapids, Mich., 200; Iron Mountain, Mich., 250; Cincinnati, O., 750; Decatur, Ill., 250; Ft. Wayne, Ind., 200; Iowa City, Iowa, 500; Duluth, Minn., 200; Grand Island, Neb., 200; Omaha, Neb., 500; Little Rock, Ark., 500; Poplar Bluff, Mo., 200; Shreveport, La., 450; Tupulo, Miss., 200; Big Spring, Tex., 250; Bonham Tex., 350; Dallas, Tex., 500; Klamath Falls, Ore., 200; Seattle, Wash., 300; and Phoenix, Ariz., 200.

Originally the VA had planned to place in operation by the fall of 1948 some 76 new hospitals. Now it is merely hoping that contracts for construction of all of the hospitals will be awarded and underway by then. Two VA hospitals—those at Lebanon, Pa., and Tomah, Wis., will be completed under that agency's own supervision about the first of next year. However, construction of many of the hospital projects may run into 1950.

Engineers say city hall is a safety hazard

That the 60-year-old city hall in Monrovia, Calif., is a definite safety hazard was reported by two structural engineers engaged by the city to examine the building. Earl Walsh of Alhambra and C. M. Herd of Pasadena, reported that the building is incapable of withstanding the slightest earthquake shock and that danger exists if second-story offices are overcrowded. The report said that from $15,000 to $35,000 in repairs would be required for the building to meet safety requirements. Dry rot in the first-floor joists and indications of it in second-floor joists were discovered.

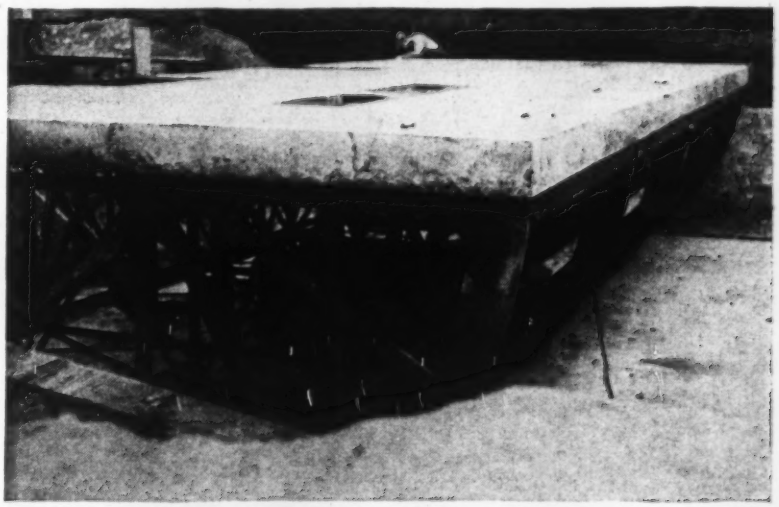
Freeways do not solve congestion, says Meins

Traffic congestion in any large modern city cannot be solved by construction of freeways, Carroll L. Meins, commissioner of the Massachusetts department of public utilities, told delegates to a recent Los Angeles convention of the National Association of Railroad and Utility Commissioners.

Meins explained that freeways cannot do the job because they cannot carry enough people, declaring that masses of people can be moved rapidly only by high speed trains. Freeways are useful in routing through auto traffic around and across a city, he said, but of little value in moving large numbers of people to and from highly congested areas.

"A fundamental error has been made in trying to solve this problem by providing the means for the mass commuting public to travel by private automobile, rather than by public transportation facilities," he asserted.

Meins, who heads a commission planning an extension of Boston's subway system, pointed out that it takes 18 lanes of high speed highway to move as many persons in one hour as can be moved by express and local trains on a single subway track.



***Rock 'Em Up**—Some 48,000 lb. of reinforced concrete rests in horizontal position on a specially designed rocker, waiting to be swung into vertical position to form sidewall of a new type of mass-produced masonry house in New York City. Developed by Charles Tyroler and marketed by the Peerless Construction Co. of New York City, the method is seen capable of producing mass housing at a cost of less than $10,000 per single-family dwelling. High early strength concrete is cast in light-gage steel decking spanning the rockers, which are positioned on the basement floor, and when hardened the wall —with provision for doors and other openings—swing into place by gravity. Basement walls are 8 in., walls above are 4 in. with 4-in. ribs.*

DEVELOPMENTS BEYOND U. S. BORDERS

Digested from reports by Engineering News-Record correspondents and the McGraw-Hill World News Bureau

Sweden finds underground factories practicable for peacetime work—Russia builds new housing units—Brazil orders equipment

Sweden—Under the ever-present threat of German attack, Swedish factories went underground a few years ago, and the results were so good that Swedish industrialists are keeping the underground plants in full operation. They declare that they will build future plants under the earth's surface, rather than on top of it.

Their determination is not dictated by fear, but by economy.

Excavation costs—since no half-measures were taken and most of the factories now operating were tunnelled into solid rock—increased construction costs by about 15 percent over plants of the same size above ground, but industrialists estimate that savings elsewhere will result in making the underground plants 10 percent cheaper over a 30-year period.

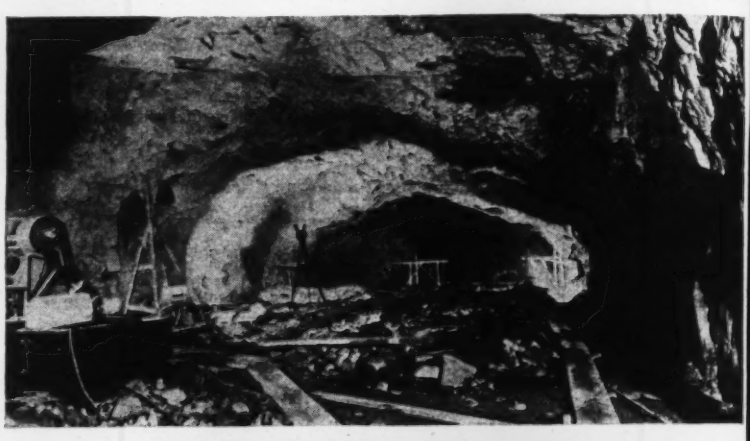
For example, an underground plant is impervious to storm. Maintenance costs are low—there is no exterior to paint, no roof to repair, no windows to wash or replace, no landscaping or fencing. Except in the most extreme weather, the plant needs no heat. There is no fire hazard—a blaze can be quickly controlled by closing air intakes.

One of the largest of the subterranean plants now in operation is the Bolinder-Munktell plant at Eskilstuna, in central Sweden, where airplane engines are manufactured. The plant contains huge rooms, some of them a city block in length, equipped with overhead cranes, all electrical devices, and air-conditioning. This plant, Swedish sources said, was blasted out of a granite mountain and completely equipped within two years.

Because of the rock structure, no central pillars are necessary, and the rough rock face is covered by beaverboard to make walls and ceilings. Factory officials and workers agreed that working conditions in the plant are healthful, since the temperature can be maintained at a constant level, and there is complete absence of draft. Officials said that surveys had shown workers' eyesight improved by work in the plant, because of the scientifically-controlled lighting and absence of sunlight glare.

Walls and ceilings are all painted near-white—a device to combat any feeling of lack of space due to the nature of the structure. Investigations on the use of color in those plants developed, Swedish engineers said, the fact that strong colors are not suitable for large masses of machinery, since they produce an oppressive atmosphere.

U. S. engineers who recently inspected some of the factories pointed out, however, that Sweden is particularly well suited for this type of installation in that solid rock is available near the surface almost anywhere in the country. The prerequisite for good construction of this type, at reasonable cost, they commented, seems to be solid rock near the surface.



***Factory Underground**—Picture at top shows shape of rock after excavation for one of the large aircraft engine factories built in Sweden during the war, and found to be profitable in peacetime operations. The lower photo gives an idea of the space, clean appearance, and good lighting possible of achievement in such a plant.*

Housing . . . .

Russia—Since liberation three years ago, some 712,000 houses have been rebuilt or constructed anew in European Russia, and other areas of the Soviet Union report some 500,000 other housing structures completed. Construction is proceeding at full speed throughout the nation on a five-year plan that is expected to provide a total of nearly 5,000,000 new housing units.

Despite the efforts of the building industry, however, it has come under heavy criticism of late, editorials in newspapers having recently taken the

Photos by British Combine

Precast Housing—As part of a British government drive to build more housing, the Ministry of Health recently approved two basic types of permanent structures (ENR Oct. 24, vol.p.546). One of these, the Orlit house, is now being erected on a site in Greenwich. It is constructed with precast floor and roof beams and 5½-in. square precast posts.

Ministry of Heavy Industry to task for supplying only 40 percent of required housing for urban factory workers. Similar criticisms have been levelled at the ministries of the building, fuel, timber and machinery industries. Principal reason for the failures to meet schedules, the newspapers pointed out, are shortages of materials and "inefficient organization of labor."

Public Works . . . .

Puerto Rico—The Planning Board of Puerto Rico, in its six year ('47-52) financial program recently submitted for public hearing, recommends an overall appropriation of $14,394,000 for public works—of which nearly a fourth will go toward construction of schools. Other projects recommended by the board included $1,500,000 for highway construction.

England—The county council of Norfolk announced plans for a $1,300,000 water supply project, in which the British health ministry would invest about $400,000.

Transport . . . .

Mexico—The signing of two amendatory agreements providing for a transfer of $4,000,000 from an existing Export-Import Bank credit for highway construction in Mexico to an existing credit for purchase by Mexico in the United States of Railway equipment was announced recently by Antonio Espinosa de los Monteros, Mexican ambassador to the United States.

This transfer will assist both the Ferrocarriles Nacionales de Mexico and the Ferrocarril Mexicano in financing purchases of equipment, materials and services to be used in connection with a broard program for improvement of transportation facilities in Mexico.

The program will be carried out by the Mexican railroad administration and the Nacional Financeria—a semi-governmental financial institution whch is party to the agreements in addition to the federal government.

Union of South Africa—Work has started on an 8-mile railway tunnel in the Hex River Valley, to eliminate dangerous curves in the present railway line between the cities of Capetown and Johannesburg.

Equipment . . . .

Brazil—The Brazilian government recently purchased 15 giant cranes from U. S. War Assets Administration, for use in harbor improvements at Rio de Janeiro. The cranes, declared surplus, had been packed for shipment overseas when the war ended, and then were kept at the U. S. Army's transportation depot at Marietta, Pa., for nearly two years.

The cranes are 20 ton capacity at 30 ft. radius, and 5 tons with 60 ft. radius. They were acquired by the U. S. at a cost of $499,000, and sold to Brazil for $255,000.

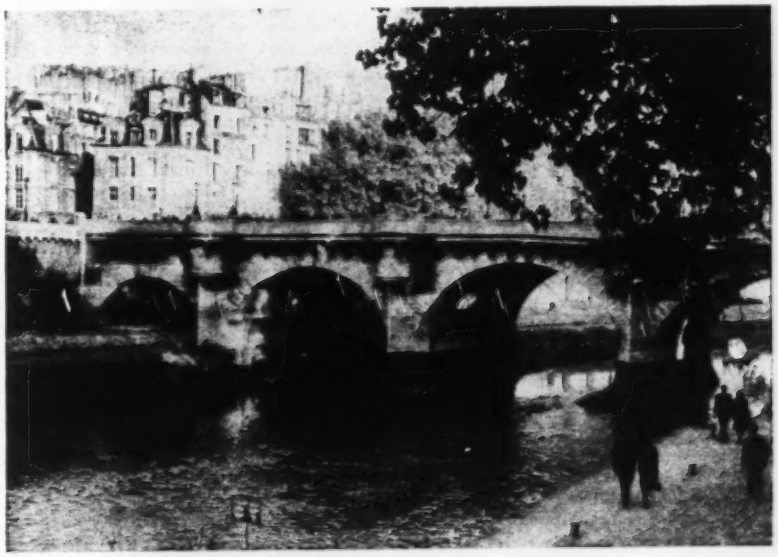
Colombia—Consorcio de Cervecerias Bavaria, S. A., brewing firm of Bogota, recently placed an order with a U. S. manfuacturer for $1,250,000 for refrigerating and other mechanical equipment for eight new breweries planned for erection in Colombia during the next year.

Miscellany . . . .

England—The first large-scale use of industrial "waste heat" to provide domestic hot water and heating is being considered by the city of Birmingham. Excess hot water from generators at electric power stations would be used to heat homes in the new suburbs of Duddeston and Nechells—which are to be cleared and rebuilt.

Russia — Russia's offensive against the enormous stretches of desert in Soviet Central Asia included the planting of 9,200 acres of desert land with trees during the last year, Russian government sources announced. The trees, along with a series of irrigation canals and other works, are a part of a long-range reclamation program to bring this region into agricultural production.

Puerto Rico—Construction of a $100,000 concrete bridge over the Yaguez River, on the road from Mayaguez to Los Marias, will start within a few weeks, after approval by the island's Planning Board. The Insular Department of Public Works will supervise the project.



Seine River Lowered—To permit the examination of foundations of bridges and docks, water in the River Siene at Paris has been lowered several feet by use of a series of dams controlling water levels. Here the Pont Neuf, famous Renaissance bridge built between 1578 and 1607, is exposed for examination.

PERSPECTIVE . . .

Structural Design for Nuclear Power

The joint release last week by the Army Engineers' Manhattan District and the Monsanto Chemical Co. of a diagram showing a projected installation for harnessing atomic energy to generate electrical power gave the first indication of what the construction needs for such a plant may be.

Monsanto has contracted to build the plant at Oak Ridge, Tenn. Construction may start within one year.

While the diagram is entirely schematic, since the project is still highly secret and plans are in such an early stage that probably even the designers are not certain about most features, some inferences may be drawn as to the part structural engineers and construction men may play in the atomic power plant field.

It is obvious from the diagram that three stages are involved: Generation of heat in an "atomic furnace"; heat exchange in a boiler; and production of electricity.

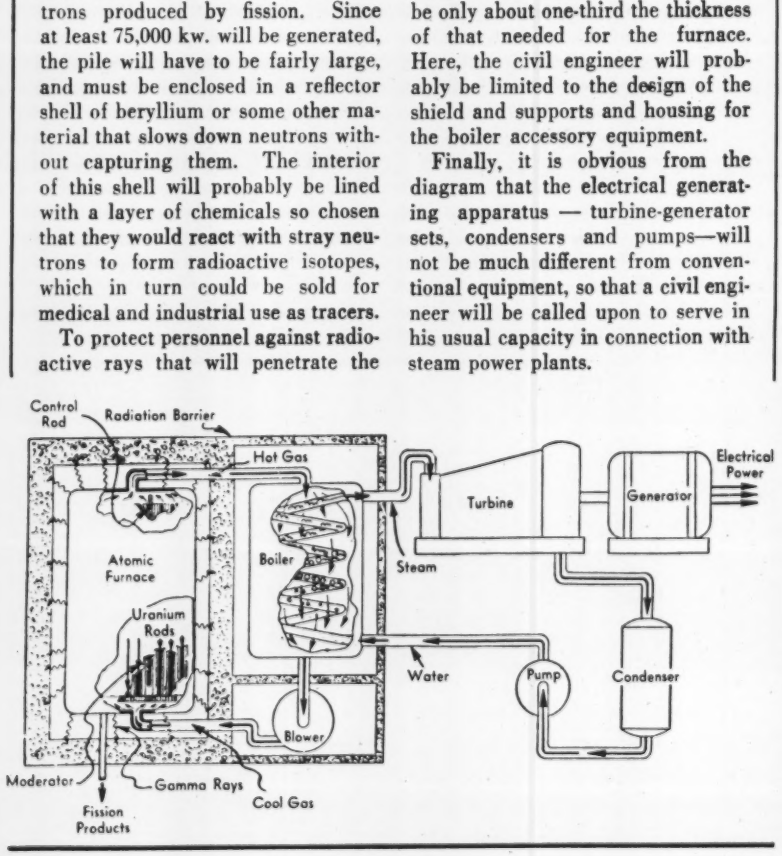
The "atomic furnace" will be a pile using actual or enriched uranium with a moderator such as carbon to reduce the velocity of neutrons produced by fission. Since at least 75,000 kw. will be generated, the pile will have to be fairly large, and must be enclosed in a reflector shell of beryllium or some other material that slows down neutrons without capturing them. The interior of this shell will probably be lined with a layer of chemicals so chosen that they would react with stray neutrons to form radioactive isotopes, which in turn could be sold for medical and industrial use as tracers.

To protect personnel against radioactive rays that will penetrate the reflector, the furnace must be shielded. While no figures are available, it seems likely that several feet of concrete—or the equivalent of some other material—will be required for this shield. Undoubtedly, structural engineers will be called upon to design this sheld, and the supports of the pile. They may also be concerned with supporting and housing equipment required to load uranium or replace parts of the pile, and with the design of chemical plants operated by remote control to dissolve burned-out slugs and separate out plutonium.

Incidentally, disposal of fission waste may pose a difficult problem to sanitary engineers.

An as yet undetermined heat transfer agent, which will also serve as a coolant for the pile, will convert water to steam in the boiler, according to the sketch. Evidently, it is not expected that there will be much danger of radioactivity being carried by the steam to the turbines in lethal quantities. The radiation barrier around the boiler appears to be only about one-third the thickness of that needed for the furnace. Here, the civil engineer will probably be limited to the design of the shield and supports and housing for the boiler accessory equipment.

Finally, it is obvious from the diagram that the electrical generating apparatus — turbine-generator sets, condensers and pumps—will not be much different from conventional equipment, so that a civil engineer will be called upon to serve in his usual capacity in connection with steam power plants.



Ohio communities plan sewerage development

A proposed sewage treatment plant for Youngstown, Ohio, to cost $4,180,500, and an intercepting sewer system, to cost an estimated $2,656,200, have received formal approval from Dr. Roger E. Heering, state health director. Plans were prepared by Jones & Henry, consulting engineers of Toledo.

Several other cities in the Mahoning Valley are considering improving sewage disposal facilities to eliminate pollution of the Mahoning River. Jones & Henry have advised against valley cities banding together for a joint sewage control program between Warren and Lowellville, recommending instead that each community attack its problem individually.

The cities of Warren, Niles, Girard, Struthers, Campbell, and Hubbard are proceeding with plans for surveys of their own.

Redevelopment board appointed at Pittsburgh

A 5-man urban redevelopment authority board has been appointed in Pittsburgh, Pa., to direct a campaign to get private investors to remove blighted areas and redevelop them.

The board, consisting of Mayor D. L. Lawrence, and Edgar J. Kaufmann, John Lester Perry, Arthur B. Van Buskirk, and William Alvah Stewart, will concentrate first on the area next to the proposed Point Park, where new apartments and office buildings would be erected.

Sewer rents ruled valid only for maintenance use

Upper Darby, Pa. has appealed to the Pennsylvania Superior Court from a county court decision ordering it to repay $175,000 in sewer rentals to township residents. The money was assessed for the construction of new sewers. Judge Albert Dutton MacDade in Delaware County Common Pleas Court ruled that the Upper Darby Township Commission has failed to follow out provisions of the act adopted by the Pennsylvania Legislature in 1935 to permit the levying of sewer taxes. A taxpayers' suit had been filed against the ordinance adopted last December.

Judge MacDade ruled the Act of 1935 provided that revenue could be used only for maintenance and not for construction of new sewers.

American Legion committee's report scores housing program for veterans

Government agencies, labor, building industry blamed for inadequate housing results so far attained

Sharp criticism of almost every government agency concerned with the production of housing for veterans, and of labor and industry generally for failure to recognize early enough that a national emergency exists, and failure to implement a realistic program to remedy that emergency, was contained in a series of findings made public by an American Legion housing committee last week.

The report was submitted to national officials of the legion at Indianapolis, Ind., after several days of hearings at Washington, D. C. (*ENR* Nov. 14, vol. p. 627).

The committee of ex-service men concluded that the emergency is the outgrowth of several factors, among them great gains in population, the depression of the '30's, and the sudden return to civilian life of nearly 13,500,000 men and women who served in the armed forces. Commenting that veterans in every part of the country are unable to find proper housing, the committee added that a "degeneration" in the American way of life is apparent, and may have lasting effect unless corrected.

Housing found chief problem

"Reconversion has not met the need of housing," the committee concluded, "because of an initial error in appraising what the prime postwar problem would be. It was not until early this year that it became apparent that housing would take precedence over employment as a problem, and the program designed to solve this problem was not concentrated upon as an emergency; a long range program . . . rather than an emergency one, was planned. It was not until the middle of 1946 that a comprehensive emergency program began to operate.

"Indications seem to be that the Veterans Emergency Program will achieve its goal as to number of 'starts' for 1946. These 'starts', however, are concentrated in the single dwelling unit field. Goals of rental and low-cost housing 'starts'—the most needed type for veterans—have been woefully short, and completions, generally, have been alarmingly low. Prices of existing structures and new construction have risen beyond the veterans' ability to pay.

An agency-by-agency survey of government attempts to promote housing brought general criticism of lack of efficiency, diversion of efforts toward sponsoring legislation, failure to set criteria for appraisal of existing homes, and spotty enforcement of priority regulations; and brought also the repetition of the group's demand that the housing problem continue to be recognized as an emergency requiring emergency measures.

Labor, contractors scored

Labor in general and contractors building non-residential structures also came in for criticism by the committee's report—labor for lack of efficiency and contractors for supporting black markets.

"It is alleged by labor representatives that labor is adequate and will remain adequate unless there is a tremendous upswing in building," the report said. "It is clear from the statements of labor and builders alike that the labor engaged in home building is extremely inefficient. This is partially due to the failure of labor groups to bring apprentices into the labor field and the high average age of the present journeymen. Unless means are found to settle strikes, increase efficiency of labor, and improve and shorten the training period of apprentices, substantial reductions in the cost of building homes will not be possible.

"The principal supporters of the black market in building materials have been the constructors of non-residential building, who have consistently raided the labor market and paid bonuses in excess of ceiling wages."

Millions to be spent on Hawaiian harbors

Millions of dollars will be spent within the next several years to repair and improve the port of Honolulu and other Hawaii harbors.

Already earmarked for tidal wave repairs is $3,750,000, and more than $6,500,000 additional will be asked from the 1947 territorial legislature for harbor development and modernization in several locations.

Territorial Gov. Ingram Stainback now is studying ways of providing a long-sought second entrance to Honolulu harbor. Along with Pearl Harbor, 12 miles away, Honolulu harbor handled a vast amount of Pacific war shipping. Experts worried that its single channel might be corked up at any time, but, actually, it did not happen until this month when a disabled freighter, the Britain Victory, grounded on a reef outside while coming in under tow. It was nine days before the entrance was cleared.

In addition, the territorial harbor board has recommended spending $5,500,000 to build a new cargo-passenger terminal near the Aloha tower. Two old piers, Nos. 6 and 16, will be razed.

Agitation for port modernization has been stirred by Matson Navigation Co.'s announced plans to shift its freight business from territorial piers to Oahu Railway & Land Co. piers because territorial facilities are inadequate.

The harbor board has also recommended a $1,000,000 expenditure to develop an all-weather port at Kawaihae on the island of Hawaii. Sugar plantations assure that it will handle enough sugar and garden produce to be self-supporting.

Tidal damage being repaired

Meantime, repair of the tidal wave-devastated port at Hilo on the island of Hawaii continues. United States Engineers, with an appropriation of $2,450,000, are restoring 6,000 ft. of damaged sea wall, using in their work a high percentage of cap rock dislodged by the April 1 wave. Other rock is being raised from the harbor floor or quarried near Hilo airport.

An additional $1,300,000 is earmarked for the repair of wave-damaged Hilo piers, half to be provided by FWA, half from territorial funds.

Wilder, Vt., power plan approved by FPC order

Reconstruction of the Wilder power development on the Connecticut River near Wilder, Vt., and Lebanon, N. H., has been approved by the Federal Power Commission. Authorization was granted to the Bellows Falls, Vt., Hydroelectric Corp. which has been operating the existing development since April, 1934, selling power to utility firms throughout Vermont and New Hampshire.

Reconstruction involved building an earth and concrete dam three-quarters of a mile downstream from the present dam and creating a lake extending 46 miles upstream. The present maximum pond level at the dam is to be raised 16 feet, flooding more than 629 acres of land.

Random Lines *from an editor's notebook . . .*

. . . in which an account is given of how the New York area members of the American Public Works Association are developing an unusual program of meetings.

Public works engineers and administrators in the metropolitan New York area have created a unique school for themselves in which they alternate as teachers and students, and utilize neighboring communities as a laboratory for an afternoon of instruction. This is the outgrowth of efforts by a local section of the American Public Works Association to provide for the exchange of information—but not in the orthodox manner of formal papers, often poorly presented in a smoke-filled room.

How a program was developed to achieve this laudable objective is worth recounting because it may suggest ideas to other local organizations seeking a departure from stodgy "technical" meetings and a means of increasing member participation.

When the Metropolitan New York-New Jersey chapter of the APWA was organized two years ago, under the leadership of Allan H. Rogers, director of public works at Garden City, Long Island, meetings were instituted that featured round-table discussions. These were good—at least they were informal and everybody in the audience had a chance to participate—but they weren't good enough to draw more than 25 or so to an evening session.

An idea is born

At this point Prof. C. J. Velz, of Manhattan College, and a member of the section's executive committee, suggested that since his students showed so much enthusiasm about inspection trips, perhaps the public works men would be interested in some variation of this "painless" means of education.

Elaborating on this idea, the committee decided to hold the next meeting in one of the member's towns easily accessible by automobile. The place was Englewood, N. J., the host member was City Engineer G. Russell Hartley, and the program consisted of a demonstration of equipment and methods of public works practice in Englewood and nearby Ridgefield Park, followed by a barbecued-steak dinner in the latter town's garage. About 75 turned out for this affair, and there was unanimous demand that the newly-elected officers—President F. M. Galloway, of Montclair, N. J., and Secretary Arthur Richards, of Larchmont, N. Y.—arrange similar future meetings.

This led to an inspection trip to the Larchmont area—with an attendance of about 85—followed by another in the Montclair area a couple of weeks ago, where the attendance was more than a hundred.

How Montclair does its job

Here's what happened at Montclair: Some 20 pieces of equipment were on display at the town public works yard, ranging from mobile sewer maintenance units through the entire gamut of street machines, snow loaders converted to leaf removers, power sprayers and saws, catch basin cleaners, tractor-loaders, refuse collectors and a wide variety of smaller tools and machines. Engineers, foremen and operators were available for demonstration and questioning, and in some cases manufacturers' representatives were at hand.

Following this came demonstrations of practice under typical working conditions. Of principal interest at this time of year is the removal of leaves from the streets, and the delegates were given an opportunity to study Montclair's method of using a Snogo and refuse collector truck for this purpose. They learned that this equipment had a daily capacity of 250 cu. yd., covered 3½ mi. of street and that the cost was 56c. per cu. yd. and $38 per mile of street covered.

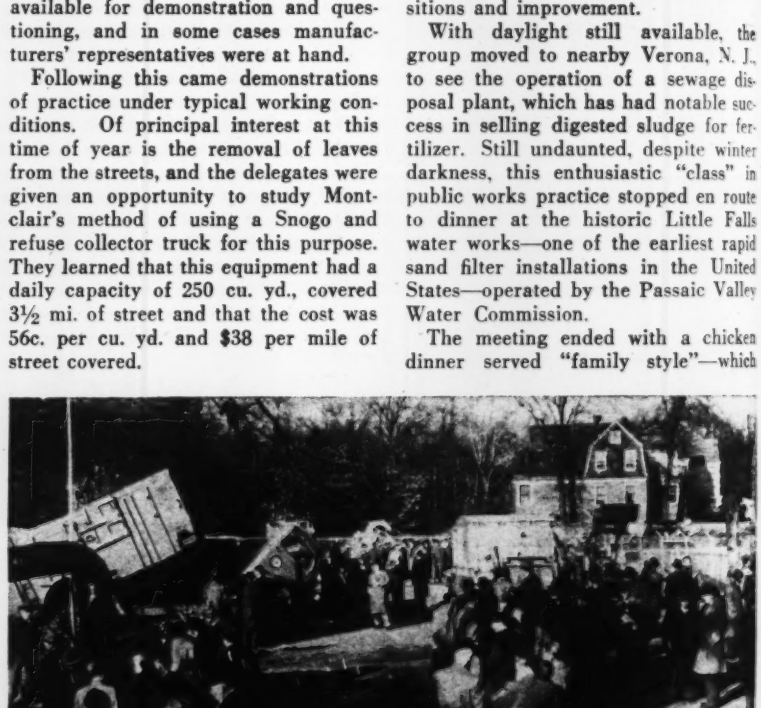
Quite a different method of handling leaves was then shown by M. A. Elliotte, sales manager of the vacuum leaf loader division of the American Strucural Steel & Tank Co. of Detroit. His machine, which was similar to an oversized vacuum cleaner, was mounted on a 2-wheel trailer attached behind a screened-in collection truck. Traveling close to the gutter, the intake pipe of the blower sucked up dry and wet leaves along with any other debris—including small stones—that happened to lie in its path.

Following this, the group moved to another street where catch basin debris-loading practice was demonstrated, using a Hough tractor-loader and two dump trucks. Hourly capacity at Montclair is 14 "dumps", totaling 17 cu. yd.

Construction of parking lots was then observed. Montclair has a $600,000 program to furnish off-street parking for some 1,300 cars. All spaces in the lots are to be metered and the receipts used to carry the bond issue for acquisitions and improvement.

With daylight still available, the group moved to nearby Verona, N. J., to see the operation of a sewage disposal plant, which has had notable success in selling digested sludge for fertilizer. Still undaunted, despite winter darkness, this enthusiastic "class" in public works practice stopped en route to dinner at the historic Little Falls water works—one of the earliest rapid sand filter installations in the United States—operated by the Passaic Valley Water Commission.

The meeting ended with a chicken dinner served "family style"—which



***Meeting in Session**—New York metropolitan area public works officials gather in the city materials yard at Montclair, N. J., to "see how the other man does it" as part of their unique plan for conducting "technical" meetings.*

was exactly what the delegates needed after their strenuous four hours of healthful outdoor instruction.

Why are the meetings good?

This detailed account of a typical meeting furnishes the background for some general conclusions as to why the New York—New Jersey chapter get-togethers of the APWA deserve emulation.

First and foremost, this type of program furnishes incentives to make that long-promised visit actually to see what the "other fellow" is doing. These incentives are: establishment of a definite time and place; the knowledge that everything has been arranged and made ready so that the visiting time is employed to maximum advantage; and finally the chance to discuss shop with your colleagues out in the open air, all of which is conducive to good appetite and fellowship at the dinner table.

Not to be discounted is the opportunity to talk with manufacturers' representatives—who are invited and welcomed to attend these meetings—about the operation and availability of equipment. Since the equipment demonstrated is not exhibit stuff but machines that are actually in use by the host town or a neighboring public works department, there is no dress-rehearsal atmosphere to contend with. And it is not unusual to see demonstrations of several makes of equipment on the same type of work as a basis of comparison.

Still another plus value is the opportunity to take along the mayor and other elected officials, particularly when there is need to educate them on the desirability of improved practices or equipment purchases.

Finally, there is a nice sense of timing to these meetings. They are held on Thursdays (best day of the week, say public works men, to be absent for a few hours), starting at 2 p.m. This gives a man a chance to organize a day's work at the office before leaving and to put in a few hours on the job. And the evening dinner is scheduled to end no later than 7:30 p.m., thus making it possible to get away for home at a reasonable time. Incidentally, not a little care is exercised in picking a place to eat where good food and fair prices go together.

Taken together, these considerations build up important reasons why public works men in the metropolitan New York area are finding it worth while to come out to these meetings four times a year. They believe they have found the ideal way to enhance their knowledge and contacts. Other organizations may find much of merit in this type of program. . . . *E.J.C.*

Courts outlaw city employee strikes

Court rulings against unionized municipal employees in Dallas, Tex., and Tulsa, Okla., mark the most striking recent developments in vital city-employee negotiations in key cities throughout the United States, according to the International City Managers' Association.

Considerable controversy has been caused this fall also by strikes of organized city employees in New York, New Orleans, Milwaukee, Pontiac, Mich.; Stockton, Calif., and other cities. Dallas reportedly is the only city barring union membership of all municipal employees. The Dallas court action upholding an ordinance prohibiting such union affiliation is an outgrowth of CIO efforts last spring to organize a union of 200 local garbage disposal employees. At that time a lower court denied the union an injunction to restrain the city from dismissing union members.

The union appealed to the court of civil appeals in Dallas which held that employees voluntarily accepted employment with the city and assumed obligations incident to such employment as regulated by existing laws. The city ordinance prohibiting civil servants' union membership is dated 1942.

In Tulsa, a strike of municipal workers was ended when an Oklahoma court held that a labor union of city garbage collectors had no right to strike against the municipality. The court also issued an injunction against picketing.

New York grants raise

In New York City a recent 20¢ hourly pay raise for transit system employees was made retroactive to July 1 following a strike threat by AFL and other unionized transit workers. The mayor reminded union members of a report issued earlier this fall by his advisory transit committee stating that a civil servant is "subject to charges of delinquency and misconduct."

New Orleans garbage disposal employees returned to work following an 8-day walkout during which controversy mounted over their right to strike. The AFL municipal employees union members struck for higher pay and were temporarily removed from the city payroll. All were finally reinstated.

Stockton, Calif., sanitation and park department employees ended their recent 5-day strike when city officials pointed out that under municipal civil service regulations an unauthorized absence for five full working days constitutes a resignation. However, the council granted a 13 per cent raise.

The longest recent strike of unionized municipal workers was the 42-day walkout of 310 city employees in Pontiac, Mich. The union finally accepted a $12.50 raise retroactive to July 1 and workers returned to their jobs. A proposal to increase the city tax levy by charter amendment in order to give further pay boosts was defeated by voters on Nov. 5.

In Milwaukee a recent 10-day strike by 270 municipal employees, members of three CIO unions, ended after the public works commissioner notified strikers that they would have to be back to work on the eleventh day or their services would be terminated as being absent without leave.

The city council in Milwaukee refused to deal with the striking union and insisted that any wage increases granted would be made only in connection with a general salary-revision ordinance effective Jan. 1.

Sewerage system needed in Reno, Nev., district

Officials of Washoe County, Nev., are preparing a legislative bill that will permit construction of a sewage system in a rapidly-developing section south of Reno where there is at present no way of financing sewage disposal projects.

The county planning commission has been forced to curtail planned building in the area because of sanitary conditions which create a health hazard.

The proposed legislation, to be presented at a forthcoming legislative session, would authorize Nevada counties to issue bonds for construction of trunk sewer lines and disposal plants. It also would permit establishment of districts for the purpose of sewage disposal, drainage, mosquito control and fire control.

Plans already in the blueprint stage call for construction of a disposal plant and approximately 17 miles of sewer lines in the area.

A recent study conducted by Harry N. Jenks, sanitary engineer, Palo Alto, Calif., applied a "deplorable, intolerable and dangerous" label to the sanitary dangers of the south Reno area, adding that the city proper also faced a disposal problem. He recommended a $1,735,000 city-county project, urging completion of the work before the winter of 1948 to avoid possible epidemic.

The city's share would consist of the laying of lines about equal to the county's 17-mile quota and enlargement of the present disposal plant.

Home building costs in Canada up 37 percent

Cost of building an individual home is said to have advanced in Canada by 37% between 1939 and 1946, with the cost still rising rapidly. This conclusion is published in the first issue of a new quarterly, "Housing in Canada", published by the Central Mortgage and Housing Corp., which controls all Dominion Government housing activities.

Material prices have not yet hit the high level they reached after the last war, being still 7% below the 1920 level, according to the report. Home building costs are said not to have increased as rapidly as have general construction costs, the latter having risen between 47% and 62% already, since 1939. Two basic reasons are advanced for the increase in costs: Increases in the cost of materials and wages of construction workers and the lowering of the efficiency in the construction industry.

Canada's atom project under new board

Canada's atomic energy project, at Chalk River, Ont., about 140 miles west of Ottawa, is being taken over by the Atomic Energy Control Board of Canada, with the National Research Council of Canada in charge of the physical operation.

The Chalk River development, of which no details have yet been published, was constructed by Defense Industries, Limited, acting as contractors for the Department of Munitions and Supply. Scientific information was supplied and research work was carried out continuously through the development of the project by the National Research Council.

In charge of the entire project will be a director-general, yet to be appointed. Reconstruction Minister C. D. Howe has announced, however, the appointment of W. S. Lewis, a physicist, formerly of Cambridge University, as director of scientific research. At the same time, the minister announced the appointment of K. F. Tupper, an engineer on the staff of the National Research Council since 1929 and a graduate of the University of Toronto, as director of engineering. A director of staff and administration will be appointed later.

The United States has already announced plans for four similar atomic energy laboratory projects (*ENR* Nov. 21, vol. p. 687).

Plan to save historic Missouri valley sites

A preliminary survey of archeological sites in the 530,000-sq.-mi. area of the Missouri Valley was conducted recently by the Smithsonian Institution, in cooperation with the National Park Service, the Bureau of Reclamation, and the Army Corps of Engineers.

This was the first of what is expected to be a country-wide series of surveys in river basins where the construction of dams will cause flooding of historic, archeologic and paleontologic remains.

At the request of the Bureau of Reclamation and the Corps of Engineers, Ronald F. Lee, chief historian of the National Park Service, has acted as liaison among the four agencies.

The prospective construction through the Missouri Basin of 105 dams and reservoirs—on some of which work already is under way—threatens the permanent obliteration of Indian habitation sites dating back to the first human habitation of the Great Plains.

Altogether the Smithsonian Survey, under the field direction of Waldo R. Wedel of the staff of the U. S. National Museum, located and marked 170 such places. The search involved more than 13,000 miles of travel, and was especially concentrated on 26 top priority locations.

Power rationing seen possible in Ontario

Some industries in the Kitchener area of southwestern Ontario may have to curtail production because of a lack of sufficient electrical power, and the whole province faces the possibility of power rationing, due to the continued increase of demands on the Ontario Hydro system. Officials said the shortage may not be relieved until that company's four new plants come into operation in the summer of 1948. These are at De Cew Falls near Niagara Falls, at Des Joachims on the Ottawa River, on the Madawaska River near Ottawa, and on the Aquasatom River north of Lake Superior.

San Francisco will sell some Hetch Hetchy water

The utilities commission of San Francisco has approved a request of Hayward, Calif., to buy water from the municipally-owned Hetch Hetchy supply, agreeing to allot 450,000,000 gallons to that city for the first year.

The request was preliminary to promotion of a Hayward bond issue to raise some $600,000 to build a 12-mile pipeline from the city to the Hetch Hetchy line near Mission San Jose.

***Island From the Sea**—Tern Island—a sandspit about the size of a tennis court 550 miles northwest of Honolulu—grew up into this airfield 3,100 by 250 ft., containing some 660,000 cu.yd. of coral, in one of the Seabee's most unusual wartime construction jobs. Now known as French Frigate Shoals Airstrip, the field was built to provide a landing field for fighter planes enroute from Hawaii to Midway Island, but became obsolete almost as soon as completed when the Navy developed expendable wing-tanks for small planes. Work of raising the island was done principally by Hawaiian Dredging Co., under the direction of Naval engineer officers.*

Phila. considers $75 million water job

A $75,000,000 program to improve immediately the taste and odor of the city's water supply was proposed last week in a final report submitted by the Philadelphia Water Commission. The report left to the future the decision for development of Wallpack Bend on the upper Delaware River as an upland source, which is estimated will cost $284,588,000.

The report left influential opinion in the city divided. Mayor Bernard Samuel and a group of city political, civic, industrial and labor leaders urged that the decision on a new upland source be left to the public to decide at a referendum.

Frederick D. Garman, president of the City Council and Phineas T. Green, chairman of the council's public works committee headed an equally strong bloc opposing the referendum and insisting that the city council make the final decision.

System overhaul recommended

The water commission's report, referred to the council's public works committee, recommended:

1. Immediate overhauling of the filtration facilities and distribution systems and installation of additional treatment to eliminate taste and odors. Part of this work is already under way and contracts awarded.

2. A long range program of improvement and additions to the present system, including the taking of a larger proportion of the city's supply from the Delaware River, and increased storage facilities.

3. Utilization of Wallpack Bend at Bushkill as the "best source of water" in the event the city decides to go to an upland source for its future supply.

Observers were of the opinion that the upland source thus was put away in the indefinite future unless public opinion or city leaders give it renewed impetus.

Proponents of the taste and odor improvement program are banking heavily on the multi-million dollar "clean streams" program being pushed by Governor Edward Martin through the Pennsylvania State Sanitary Water Board. They say that this will result in elimination of major pollution from the waters of the Schuylkill and Delaware rivers, present sources of Philadelphia's water supply.

Ozone for quality improvement

Under the commission's first recommendation for quality improvement about $12,000,000 will be spent installing new treatment equipment. This must be done regardless of what source is finally chosen.

As part of its first stage interim program for the rehabilitation of its present water treatment facilities, Philadelphia has awarded the contract for ozonation equipment and its installation at the Belmont filtration plant to Welsbach Engineering and Management Corp., Philadelphia. The equipment will be supplied by Ozone Processes, Inc., a wholly-owned Welsbach subsidiary. This ozone installation, to be the largest in the United States, will have a producing capacity of 1,250 lb. of ozone to treat 36 mgd. Ozone will be applied to the raw water ahead of coagulation and filtration to oxidize soluble taste, odor and color-producing impurities. The installation will be based on extensive pilot plant tests made by water bureau engineers over a 2-year period. According to Thomas Buckley, Director of Public Works, the ozonation installation will be in full operation in 1948.

Additions to cost $62,568,000

The commission's second step, requiring the expenditure of $62,568,000 over a long time period, calls for improvement and additions to the present water system including the taking of a large proportion of the water supply from the Delaware River, and increasing the storage space.

The commission pointed out that should the Schuylkill River be abandoned as a source of water, the additional cost of delivering Delaware water from Torresdale to Belmont and Queen Lane filter plants would increase the cost $25,000,000 necessitating a 23 percent increase in water rents instead of 13 percent.

Meanwhile those in favor of going all out for a new upland source have let it be known that they will continue to fight for the Wallpack Bend project (*ENR* Jan. 24, vol. p. 138) as being the only solution of the city's water supply problem. They insist that the taste and odor improvement program is fine in itself for the present but is no permanent solution to the problem.

Fire damages rail span

Nearly 300 ft. of the long Pennsylvania R.R. bridge across Barnegat Bay, N. J., was destroyed Dec. 1 by fire of undetermined origin, forcing suspension of all through train traffic between Camden, N. J., and coastal points as far north as Long Branch.

W. T. Ingram to direct new project for APHA

The executive board of the American Public Health Association has appointed Lieut. Col. William T. Ingram, U. S. Public Health Service of Berkeley, Calif., as engineering field associate to have charge of a project to explore such problems related to sanitary and public health engineering as the following:

(1) More adequate provision of needed personnel employed in general environment sanitation.

(2) Establishing the engineer in a position of greater usefulness to public administrators.

(3) Developing sanitary engineering and public health engineering as professional careers offering attractive opportunities to young men now entering colleges and universities.

(4) Stimulating universities to the expansion of undergraduate and graduate curricula which will prepare the student for his professional engineering role.

(5) Improving and broadening the environmental health services in all of the functional fields in keeping with state and community requirements.

Colonel Ingram's experience includes work with the San Joaquin Local Health District, United States Public Health Service, and United Nations Relief and Rehabilitation.

The field project has been underwritten for a period of two years by the National Foundation for Infantile Paralysis through funds from their March of Dimes, and by a group of sanitary engineering industries.

N. J. highway engineers get new assignments

A decentralization of the top engineering work of the State Highway Department of New Jersey was put into effect on Dec. 2 by Commissioner Spencer Miller, Jr. to facilitate handling the state's greatly expanded highway program. The changes were made on the recommendation of Charles M. Noble, state highway engineer.

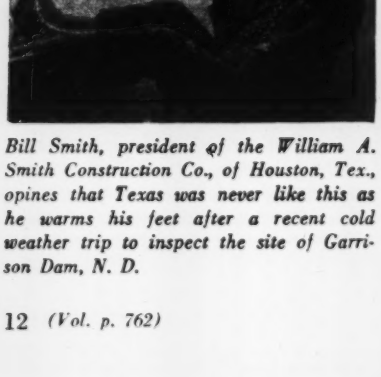
C. F. Bedwell, who has long served as construction engineer of the department has been advanced to a new post of chief of design and construction. His deputy will be C. A. Burn.

Harry D. Robbins, construction engineer of the central division succeeds Mr. Bedwell as head of the construction division, and Neil MacDougall, assistant engineer of plans and surveys at Newark, has been promoted to construction engineer, central division.

MEN AND JOBS

C. Y. Thomason, head of C. Y. Thomason Co., Greenwood, S. C., construction firm, was elected president of Carolinas Branch, Associated General Contractors, at the 26th annual meeting of the group held at Augusta, Ga., Nov. 11-12.

Arthur W. Consoer, of Consoer-Townsend Associates, Chicago consulting engineers, receives the War Department's Certificate of Commendation from Col. D. O. Elliott, Great Lakes Division engineer, at Chicago ceremonies.



Bill Smith, president of the William A. Smith Construction Co., of Houston, Tex., opines that Texas was never like this as he warms his feet after a recent cold weather trip to inspect the site of Garrison Dam, N. D.

Joseph A. Wahler, Altadena, Calif., construction engineer, has been sent to Liberia, Africa, by the Firestone Plantation Co. as general supervisor of construction work on roads and bridges. He expects to remain a year. He was sent to Liberia in a similar capacity in 1941 by the Pan American Airways and the Firestone Co.

Emerson B. Steele, civil engineer with Morrison-Knudsen Co., Inc., has left Boise, Ida., his home, to spend four months on a survey trip in Saudi Arabia. He will work on a survey for highway and railroad construction.

R. M. Tutton has succeeded B. J. Conlon as division maintenance engineer at Council Bluffs, Iowa, for the State Highway Commission. He has been with the commission since 1928.

J. V. Waddell, Fayette County superintendent of highways at Vandalia, Ill., for the last 32 years, submitted his resignation, Nov. 13, to become effective Feb. 1, 1947. He has been an engineer for 42 years.

Paul J. DuPre of Lenoir, N. C., has been made acting office engineer for the eighth division of the North Carolina State Highway Commission.

Maj.-Gen. Hugh A. Young, vice president of Central Mortgage and Housing Corp., has been elected president of Wartime Housing Ltd., Toronto, Ont. General Young, prior to 1941 was secretary of the Windsor, Ont., Utilities Commission.

Lawrence Hayes, Belmont, Ohio, has been named Belmont County engineer, a post vacant since the death of G. C. Travis.

E. Ford King, Jr., resident engineer at Elkin, N. C., for the North Carolina Highway Commission, has been transferred to North Wilkesboro to succeed **J. Y. Patton,** who has resigned as resident engineer to become associated with William F. Freeman, High Point, N. C., consulting engineer.

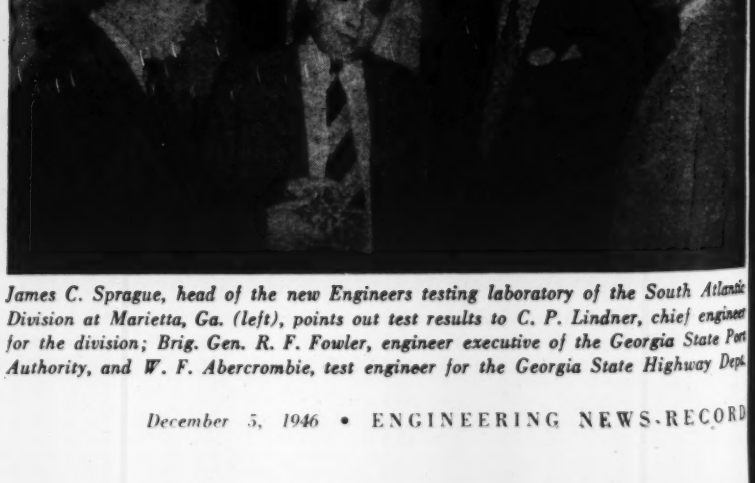
Ralph H. Cahill, village engineer and commissioner of public works of Whitefish Bay, Wis., has been appointed a commissioner for the Metropolitan Sewerage Commission of Milwaukee County.

H. S. Donnelly, formerly of Tacoma and Olympia, Wash., has been appointed Ferry County engineer at Republic, Wash.

H. M. Anundson has opened offices in Portland, Ore., at 445 N.E. Laurelhurst Pl. for the practice of structural and civil engineering. He was on the staff of the Oregon Highway Commission for 10 years until the war, when he was with the Kaiser Co. shipyard.

William D. Shannon, director of the American Society of Civil Engineers, has been elected to the Washington state legislature from the 43rd district in Seattle.

Huestis E. Archibald has been ap-



James C. Sprague, head of the new Engineers testing laboratory of the South Atlantic Division at Marietta, Ga. (left), points out test results to C. P. Lindner, chief engineer for the division; Brig. Gen. R. F. Fowler, engineer executive of the Georgia State Port Authority, and W. F. Abercrombie, test engineer for the Georgia State Highway Dept.

pointed engineer to the Township of Teck, in northern Ontario, including the mining center of Kirkland Lake. Mr. Archibald is a graduate in civil engineering of the University of Toronto. He served during the war with the Royal Canadian Engineers and since has been with the Ontario Department of Planning and Development, and more recently with Proctor, Redfern and Laughlin, consulting engineers of Toronto. **F. G. Browne,** who has been acting township engineer since 1942, now assumes fulltime duty as township waterworks engineer.

Howard R. Edwards, senior city civil engineer of Columbus, Ohio, now has also part time duties as traffic safety engineer.

Charles W. Zwally has joined Gannett Fleming Corddry & Carpenter, Inc. of Harrisburg, Pa., and New York. He will be at the Greensburg, Pa., office on special design work in connection with the extension of the Penn Parkway westward from Pittsburgh. Mr. Zwally was at one time with the Pennsylvania Turnpike Commission; later with his present company in charge of highway design at Andrews Field, Md.; still later he was on the staff of Michael Baker, in the design of the Penn Parkway through Pittsburgh; and recently with the U. S. Engineers Corps on maintenance of airports in Puerto Rico.

L. S. Vance has resigned as chief engineer and superintendent of the Louisville, Ky., Water Co. to become technical adviser to the new metropolitan district sewer board. **Byron E. Payne,** who did Vance's work while the latter was in the Army Air Forces, has been appointed chief engineer and superintendent of the water company.

F. J. Ward of Louisville, Ky., is general superintendent for the J. A. Jones Construction Co. of Charlotte, N. C., on the construction of a $3,000,000 building at Greensboro, N. C., which will house a distribution center for Sears, Roebuck and Co.

T. Y. Johnston, who was formerly connected with Marshall S. Hanrahan Construction Co. on Jan. 1 will join Morrison-Knudsen Co., Inc., as highway division manager. His office will be in San Francisco.

James G. Lund, who has been county engineer for Traill County, N. D., and located at Hillsboro, is now connected with the Concrete Sectional Culvert Co. He resigned from the county position last July. He previously was with the State Highway Department as resident engineer at Grand Forks.

T. F. Matson of Clarion, Iowa, has been appointed county engineer of Davis County, Iowa, to succeed Herbert Hill, who resigned Sept. 1. He formerly served as county engineer for Wright County.

Bernard Donelan has been appointed resident engineer and superintendent at the Kingsley Dam by the Central Nebraska Public Power & Irrigation District at Hastings, Neb. He has been with the district for the last eleven years. He succeeds **E. J. Macks** as resident engineer.

John F. Long, who recently returned to civilian life after serving in Europe with the Army in a photomapping unit, has joined the Bureau of Reclamation at Denver, Colo. He has been assigned to the materials laboratory section of the Engineering and Geological Control and Research Division to conduct tests and research work to determine the best concrete mixes for future construction. Long, a civil engineering graduate of Ohio State University, previous to the war, spent considerable time with the U. S. Army Engineers. For a time he was stationed at Rock Island, Ill., then went to Houston, Tex., and before the war was working at Louisville, Ky.

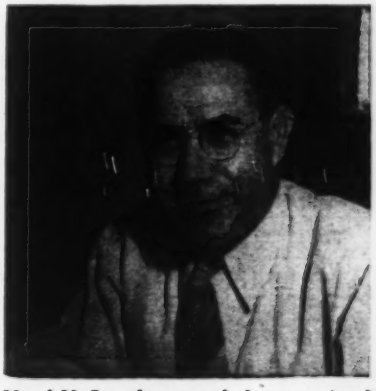
Robert B. Mitchell, executive director of the Philadelphia City Planning Commission has been awarded the 1946 award of the Philadelphia Citizen's Council on City Planning as the public servant who did the most for the city and community planning during the year. **Benjamin West Frazier** was honored as the private citizen who has done the most for city planning.

A. F. Raulin, graduate in civil engineering, University of Illinois, 1943, started work, Oct. 1, with Jenkins Merchant and Nankivil, Springfield, Ill., as draughtsman. After graduation, Mr. Raulin worked in Pittsburgh, and later he joined the Navy, serving overseas one year in the South Pacific as ensign.

J. Clifton Kneeshaw of La Jolla, Calif., has retired after 23 years with the dredging division of the Panama Canal as surveyor, assistant engineer and assistant supervisor of dredging. He has had 43 years of engineering work with the Union Pacific Railroad, the Coast and Geodetic Survey, Bureau of Reclamation, U. S. A. Engineer Corps., San Diego city and county, and various private firms in California.

L. R. Sloan, general superintendent for Concrete Pipe Constructors (left) and Comdr. R. D. Thorson, resident officer in charge of construction on the San Diego, Calif., aqueduct, talk over progress.

Sunday in Caracas, Venezuela, like everywhere else, is a day of rest. Hence this "just about to take a siesta" study of Robert R. Ellis, South American manager of the Frederick Snare Corp.



Murel M. Starr has recently been appointed construction engineer for the Tucumcari, N. M., irrigation project under construction by the Bureau of Reclamation. He has been associated with the project since 1939.

F. E. Lyford new president Merritt-Chapman & Scott

Frederic E. Lyford has been elected president and director of Merritt-Chapman & Scott Corp., New York City, one of the oldest companies in the heavy construction and marine salvage industries. He succeeds Lewis L. Smith who is retiring after forty years of service.

F. E. Lyford

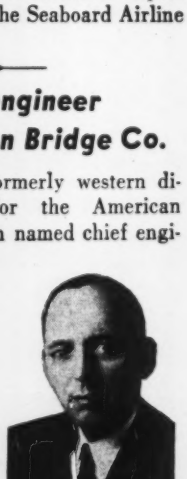
Mr. Lyford joined the organization in 1944, as assistant to the chairman of the board. He is a graduate of Cornell University, where he received his engineering degree in 1916. Since then he has had a wide experience in the engineering field. Some of his former associations were as assistant to vice-president, Baldwin Locomotive Works and from 1937 to 1944, trustee, New York, Ontario & Western Railway, in complete charge of operations and finance.

In 1943, at the request of the United States Government, Mr. Lyford served as chief of the American Railroad Mission to Portuguese railroads in Africa for the Office of Economic Warfare. At the same time he conducted investigations for the French railroads in French Equatorial Africa.

In 1944 he was engaged by the Bankers Trust Company as valuation expert in connection with the Seaboard Airline reorganization.

New chief engineer for American Bridge Co.

C. Earl Webb, formerly western division engineer for the American Bridge Co., has been named chief engineer for the organization, succeeding Charles F. Goodrich, who retired recently after 40 years of service with the company.



C. E. Webb

Mr. Webb will be succeeded as western division engineer at Chicago, Ill., by Albert P. Boysen.

Mr. Webb, a native of Mason, Mich., received his civil engineering degree at Michigan State College, and joined American Bridge in 1914 as a draftsman. In 1922, he became designing engineer at the company's Chicago office, and served in that post until appointed division engineer in 1935. His design work on some of the largest railroad and highway bridges has been outstanding, and during 1933 he was in charge of developing erection schemes for the suspension span towers for the San Francisco-Oakland Bay Bridge. A member of the ASCE, AREA, ASTM and other organizations, he is a past president of the Western Society of Engineers.

C. F. Goodrich

Mr. Goodrich, a graduate in civil engineering of Dartmouth College, joined American Bridge in 1906, and became chief engineer in 1935. His very wide experience covers work on many of the country's most famous buildings and bridges. He has also been a leader in promoting improved status and salaries for engineers.

Mr. Boysen received his technical education in the Chicago Technical College and Armour Institute of Technology. He joined American Bridge in 1912, and since 1942 has been in charge of design for important building activities in the Western district.

Boom hits power line electrocuting 4 men

Four Pacific Gas & Electric Co. employees were electrocuted and five injured Nov. 23 when a crane they were unloading at the company's Shasta substation near Cottonwood, Calif., came into contact with a 220,000 volt power line.

The accident happened when the operator of the rented crane swung the boom around to escape some trees, so hitting the power line.

Boston plans to untangle market area traffic

A plan to iron out traffic congestion in Boston's Faneuil Hall market section, and at the same time provide a more suitable setting for that historic building, has been offered to the city's off-street parking committee. The plan includes:

Construction of a park running along the present site of big Quincy Market, which would be demolished along with other buildings; and construction of a garage beneath the area now occupied by Quincy Market.

U. S. guarantees market for 10,000 steel houses

W. H. Harmon Corp. of Philadelphia, Pa., has announced that it has signed a $38,000,000 contract with the U. S. government to build 10,000 pre-fabricated all-steel homes and that the "packaged houses" will be produced in the former Dravo shipyard in Wilmington, Del.

The contract, first of its kind in the East and second in the country was signed with the Reconstruction Finance Corporation under the "guaranteed market" provision of the Veterans Emergency Housing Act.

The construction line for the low-cost homes, in full production, will roll out houses at the rate of one every eight minutes. Top production is expected to be reached in June or July, when 1,500 homes a month must come off the assembly line.

The homes will be in eight different models of conventional design, to sell at $3,350 to $4,080, f.o.b., the Wilmington factory. Home buyers will purchase the houses on landscaped grounds, and ready for occupancy at from $6,000 to $7,500, the firm says.

The eight models, differing as to floor plans, size, and interior layouts, will provide eight different styles. Each home will have a peaked roof, and can be built on a cellar but is recommended for a concrete foundation to avoid the higher costs resulting from cellar excavation. Of one-story design, the Harmon houses are of 2 and 3-bedroom size, each with kitchen, dinette, bathroom and living room in addition.

Mississippi outlines major school program

Mississippi's public school system has outlined a $6,000,000 construction program and it is anticipated that this figure will reach $10,000,000 when a survey has been completed.

The state building commission, which was given $3,000,000 by the last legislature as state aid for common school construction, has already received 208 applications from communities for portions of this fund.

In view of the fact that this $3,000,000 fund will not nearly meet the needs of state schools, it is expected that the state building commission will ask the next legislature for an additional appropriation.

Local funds are being used entirely in many communities for school construction purposes, while schools that call on the state for assistance are required to furnish a portion of the needed funds.

Philadelphia can finance 4 years' public works

Philadelphia, Pa., has a borrowing capacity sufficient to finance all public works projects scheduled between now and 1950, according to figures disclosed by Edward Hopkinson, Jr. chairman of the City Planning Commission.

Mr. Hopkinson said his prediction is based on the 1946 estimate of construction costs and on the 1946 tax assessment valuations. In discussing the $302,000,000 public improvement program which the planning commission recently recommended to the city council, Mr. Hopkinson emphasized that projects to be started in 1947 will be limited to about $45,000,000 because of shortages in construction materials or because of "some other bottlenecks of production" which would delay the improvements or make them unduly expensive.

The following projects are definitely to go ahead in 1947, Mr. Hopkinson declared: Philadelphia General Hospital, $2,300,000; Department of Public Safety, $600,000; Department of Transit, $4,000,000; Department of Welfare, $2,000,000; Department of Wharves, Docks and Ferries, $300,000; Department of Public Works $33,000,000; The County Board of Prisons, $300,000.

Waterworks expansion planned for Atlanta, Ga.

Plans for a $2,857,000 waterworks expansion program for the next 25 years are being undertaken by Atlanta, Ga. More than $500,000 of development can be started at once.

It is planned to lay more than 11 miles of large mains, build a new filtration plant on city-owned property at the Chattahoochee River, and improve and modernize existing waterworks facilities.

The program also includes:

A new $1,700,000 filter plant having a capacity of from 15,000,000 to 18,000,000 gpd. which could be increased later to 54,000,000 gpd.; construction of a new 60 to 72-inch connection from Reservoir No. 1 to Reservoir No. 2 at Hemphill Station, $100,000; erection of a new chemical house for treatment of water at Hemphill, and other improvements, $365,000; Construction of a new 48-inch supply line from Hemphill filtration plant to the pumping station, $65,000.

Plans for the main extensions were presented by Joe Eley, consulting engineer for the water department, and Herman Wiedeman, of Wiedeman & Singleton, engineers, Atlanta.

Minnesota oil pipeline to be completed soon

Construction of a 662-mile pipeline which will carry petroleum products from the Standard Oil Co.'s refinery at Whiting, Ind., to Minneapolis, St. Paul and Moorhead, Minn., will be completed early next year.

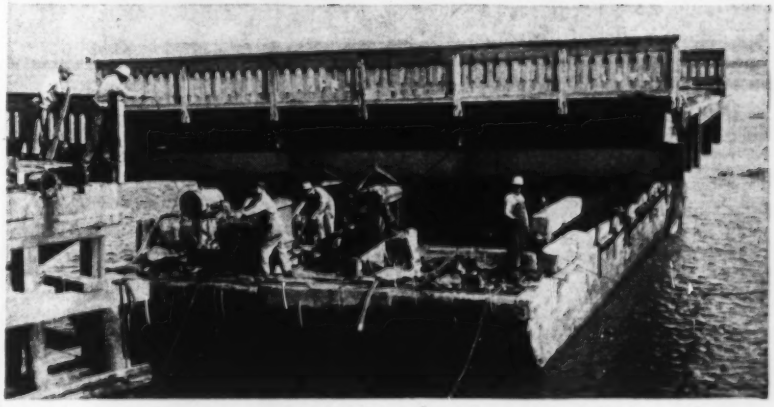
The pipeline will also serve northern Illinois, northeastern Iowa, southern and western Wisconsin, and most of Minnesota and North Dakota with gasoline, kerosene, tractor fuel, fuel oil and heater oil. Three pumping stations, at Joliet, Ill., Dubuque, Iowa, and Osseo, Minn., will be completed early in 1947. The pipe is 10 inches in diameter from Whiting to Minneapolis and 8 inches from Minneapolis to Moorhead. Distribution terminals will be located at Rochelle, Ill.; Dubuque, Iowa, and Spring Valley, Minneapolis and Moorhead, Minn. Thence products will be transported by rail and truck into local areas not served by the line.

Redevelopment plan for Indianapolis, Ind.

The Indianapolis, Ind., Redevelopment Commission met recently to consider a declaratory resolution designating as a blighted area a 178-acre tract bounded by West, Sixteenth and Milburn Sts., Stadium Drive and Tenth St. in that city.

This is the first of a series of legal steps by which the commission will purchase the area, clear it of undesirable buildings, and sell part of it back to private interests for housing developments. The rest of the land will be used for parks and public buildings. If no obstacle appears soon, purchase of the land may begin within 30 days.

The Indianapolis redevelopment plan was legalized in the 1945 State Legislature. The city's share of the plan is financed by a tax levy of 10 cents per $100 of valuation. Applied for the first time in 1946, it netted the commission $291,000 in a recent month.



***Fixed Bridge Becomes Draw**—When engineers of the Johnson-Western Co., of San Diego, Calif., faced the problem of moving the dredge "Dallas" into Mission Bay, along with two barges carrying Navy barracks, they solved the problem by cutting loose a 40-ft. section of the Mission Bay Bridge at low tide, floating it out from its place on a barge, and then—when the dredge and barges had passed through, closing up the gap by reversing the procedure. The dredge will be used to remove some 890,000 cu.yd. of material to aid in the development of San Diego's Mission Bay Park.*

ENGINEERING SCHOOL NEWS

30-day course for building trades workers at University of Washington—New educational films for engineering students

The University of Washington at Seattle is offering an intensive 30-day non-credit course for persons now engaged in or intending to enter the building trades. The course, designed to help break a bottleneck in skilled help, is sponsored by the Retail Lumbermen's Association in cooperation with the university's forestry, architecture and business administration departments.

Two new laboratories, one for sanitary engineering research and the other for soils mechanics studies, have been established at the University of Minnesota. The major portion of the equipment required for the immediate use of the sanitary engineering laboratory, one of fifteen now in operation throughout the United States, was obtained without cost as surplus property from war plants. The new soils mechanics laboratory will be used both for undergraduate instruction and for graduate study and research.

John H. Mathewson and George J. Tauxe have been appointed to the engineering faculty of the University of California at Los Angeles. Mathewson, who took his bachelor's and master's degrees in engineering from the University of Michigan, was released from the Navy this year with the rank of lieutenant commander. He also served for a year in the Army Air Forces as chief safety engineer. Before his period with the armed forces he worked with the National Safety Council, his special field in that organization having been accident prevention.

Mr. Tauxe was graduated from the University of California and received his master's degree at Cornell. He also earned the rank of lieutenant commander in the Navy, previously having served as instructor in mechanics at the University of Wisconsin and as McMullen Fellow. He also did considerable research in soil mechanics, at Cornell. He will specialize in statics, dynamics, strength of materials and materials of construction.

Prior to the war, more than half of Purdue University's student body of 7,121 students was enrolled in engineering courses. An official tabulation in 1940-41 showed that slide rules and T-squares were carried to class by 4,400, exceeding the number of engineering students in any other college or university.

Purdue's enrollment has increased more than 50 percent over the prewar peak to 11,500. Of that number, approximately 6,600 are seeking degrees in engineering. Another 1,000 are registered in 12 branch centers throughout the state. These centers are offering freshman engineering courses.

Alabama Polytechnic Institute, Auburn, Ala., plans a 145-unit trailer camp at a cost of $30,000. The camp, just outside the city limits of Auburn, will be for use by students.

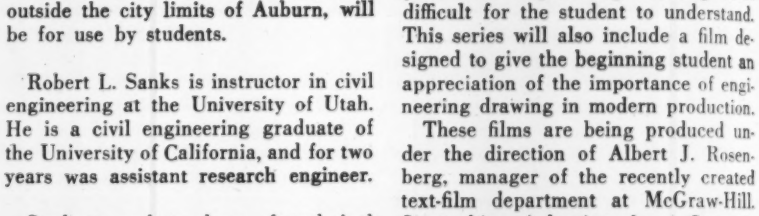
Robert L. Sanks is instructor in civil engineering at the University of Utah. He is a civil engineering graduate of the University of California, and for two years was assistant research engineer.

Students and teachers of technical drawing will soon be able to use specially prepared films to supplement and amplify two leading textbooks on the subject as a result of a new program announced by McGraw-Hill Book Company. The book company has started production of two series of text films on the principles and techniques of mechanical and engineering drawing, each consisting of seven 16mm. sound motion pictures and a like number of coordinated silent filmstrips. They will be ready for distribution next spring.

One series of text-films will correlate with French's Engineering Drawing", a textbook widely used in colleges and technical institutes for three decades. The other series will correlate with the high school text, French and Svensen's "Mechanical Drawing". Instructors' manuals will provide suggestions on use of these materials.

In the series for college instruction, separate films will explain principles and demonstrate techniques on orthographic projection, auxiliary views, oblique views, sectioning, and dimensioning. These subjects were selected by the users of the textbook themselves, in answer to a questionnaire about phases of engineering drawing most difficult for the student to understand. This series will also include a film designed to give the beginning student an appreciation of the importance of engineering drawing in modern production.

These films are being produced under the direction of Albert J. Rosenberg, manager of the recently created text-film department at McGraw-Hill. Since his graduation from Carnegie Tech, Mr. Rosenberg has had wide experience in film work and in education, and was at one time an instructor of mechanical drawing. He taught at Johns Hopkins University and at the University of Baltimore. During the war, at the U. S. Office of Education, he had charge of the production of 75 educational motion pictures.



***Drainage Problem**—Nearly three-quarters of a mile of 36-in. dia. sewer had to be installed to provide natural drainage for this $300,000 underpass at Florence, S. C. The underpass carries U. S. Route 76 under the double-track main line of the Atlantic Coast Line R.R. each track being supported on five 36-in. steel beams with a span of 49 ft. Vertical clearance provided is 14 ft., and the roadway under the track is 44 ft. wide. C. Y. Thomason Construction Co., Greenwood, S. C., was the general contractor, under direction of the South Carolina State Highway Department.*

States push flood control programs

Flood control plans for river valleys, held in abeyance during recent federal economy moves, took on new interest last week as upward revisions of money limitations were announced at Washington (*ENR* Nov. 28, vol. p. 706).

Alternate plans for flood control in the Willamette valley of western Oregon, as worked out by U. S. Army Engineers, have been approved by the Department of the Interior, Federal Power Commission, Department of Agriculture, Bonneville Power Administration and the Columbia Basin Interagency Committee. (*ENR* Nov. 14, vol. p. 632)

As explained by Col. Orville E. Walsh, Army engineer for the Portland district, the alternate plans call for construction of four low dams on tributaries of the McKenzie River instead of the originally proposed high dam at Quartz Creek, and three low dams on tributaries of the South Santiam River instead of a high dam at Sweet Home.

The low dams, it was explained, will meet objections of fish conservationists as well as preserve the scenic and recreational values of the areas. Colonel Walsh estimated that increased costs involved in construction of the seven low dams will not exceed $6,000,000.

Plan for Indiana

Thirty reservoir sites at upstream spots for flood control, recreation and water supply are being studied as the basis for a master plan of flood control and water supply in Indiana, Anton Hulman, chairman of the Indiana Flood Control and Water Resources Commission has announced.

"We have a definite program for the benefit of Indiana and we seek the backing of state and federal legislators as well as that of all citizens," Mr. Hulman said. "We believe that upstream reservoirs, levees, channel clearances, soil conservation and forestation all have their places. Right now we have developed the reservoir planning to such a point that we are asking federal and state legislators to support it."

The proposed reservoirs would combine flood protection, permanent recreational lake facilities in most instances, and water supply storage where needed. Cagles Mill reservoir on the Putnam-Owen County line has been approved by the Army Corps of Engineers, which is now making final field surveys for construction.

Nevada builds 316 dams

Nevada farmers and ranchers constructed 316 dams last year in cooperation with the state office of the Federal Production and Marketing Administration program to help conserve water and prevent erosion. A total of 114,000 cu. yd. of dirt was removed in their construction.

Under the agricultural conservation program PMA shares in the cost of building farm and ranch dams, paying cooperating farmers 8 cents a cu. yd. for dirt removed.

Sacramento makes tests for underground garage

Test borings have been started in the Sacramento, Calif., City Plaza by engineers of the state division of highways to determine feasibility of a 2-level underground garage.

The garage, which would cost an estimated $1,000,000 would park some 1,000 cars. The project would be financed by a private corporation on a long term lease basis, and when paid for would revert to the city.

Bridge construction jobs considered

As part of current campaigns to relieve growing street traffic congestion, many U. S. cities have under consideration plans for the construction of new highway bridges.

The New York City brokerage firms of Allen & Company and Shields & Company have entered into a tentative agreement with the city council of East St. Louis, Ill., to purchase $5,000,000 of revenue bonds to finance the construction of a city-owned bridge across the Mississippi River between Missouri avenue, East St. Louis, and a point near Third street and Delmar boulevard in St. Louis, Mo.

The new bridge would be about one mile north of the Eads Bridge, which is operated by the Terminal Railroad Association of St. Louis, and in addition to the Eads Bridge would also have competition from the Douglas MacArthur Bridge, owned by the city of St. Louis; the McKinley Bridge, owned by the Illinois Terminal Railroad; the Chain of Rocks Bridge, the property of the City of Madison, Ill., and the Jefferson Barracks Bridge, operated by St. Louis County, and others.

The final decision on whether the New York brokerage firms will take the East St. Louis bridge bonds will depend on the outcome of a traffic use survey which they will conduct, and the city will be advised of the company's decision on Jan. 15, 1947.

New Ohio bridge

A new bridge across the Ohio River and relocation of U. S. Route 40 through Wheeling, W. Va., and for a distance into eastern Ohio, is now under consideration by highway officials of the two states.

Designed as part of a program to enable through traffic to avoid crowded downtown Wheeling, the relocation of Route 40 would involve construction by Ohio of two miles of highway along Whisky Run Creek, east of St. Clairsville, and reconstruction of Ohio State Route 214. The relocation would start at Elm Grove, W. Va., following the route of West Virginia State Route 91, crossing the Ohio River on the proposed new bridge which would connect with the new Ohio highway.

Approve California work

By eliminating 1,320 tons of structural steel from original plans, the California Department of Public Works has reached an agreement with the U. S. Public Roads Administration permitting foundation work for the Noyo River bridge in Mendocino County. The project earlier had been contracted for on a $1,322,000-bid but was deferred by presidential directive.

The department awarded an amended contract to the Guy F. Atkinson Co., San Francisco, for $874,215 for foundation work on the Noyo bridge and for replacement of two posted bridges across Mitchell and Hare Creeks.

Kentucky-Indiana bridge toll-free after 17 years

Mayor E. Leland Taylor of Louisville, Ky., recently formally presented Louisville's Municipal Bridge over the Ohio River, now fully paid for by tolls, to the state of Kentucky.

The steel through-truss span, built in 1928-29 at a bond issue cost of about $4,600,000 and now to be toll-free, was accepted for the state by Governor Simeon Willis in the presence—among many others—of Indiana's Governor Ralph Gates.

As the name, "Municipal Bridge," is no longer appropriate, the span will be called "The Louisville Bridge," for the time being, according to Stephen Watkins, chairman of the State Highway Commission who will administer the span.

OBITUARY

Arthur W. Tarbell, 74, dean of men emeritus at Carnegie Institute of Technology, Pittsburgh, Pa., died Nov. 24 at Hyannis, Mass. He had retired in 1938 after 30 years on the Tech staff. A graduate of Harvard University, Dean Tarbell went to Carnegie Tech in 1908 as assistant secretary. Two years later he was appointed registrar where he served for ten years before being made dean of men in 1919. In addition to his many activities as advisor and lecturer, Dean Tarbell wrote the first history of the school published in 1937 under the title of "The Story of Carnegie Tech."

Ernest E. Gray, assistant city engineer at Seattle, Wash., from 1906 to 1910, died Nov. 14 in that city. Mr. Gray was graduated from McGill University, Montreal, and had lived in Seattle since 1906. While with the city engineering department, he prepared plans for the Alaska-Yukon-Pacific Exposition site and laid out the trunk sewer line from the University of Washington. In 1910 he resigned from the department to go with the Union Oil Co., with which he was associated until his death.

Frank Snyder, 47, a civil engineer and former district OPA director, in Scranton, Pa., died Nov. 20 in Newark, N. J.

Walther J. Wefel, 56, died in Cleveland, Ohio, Nov. 21. Prominent in engineering in Cleveland for the last 30 years, before forming his own firm he had been associated with the Arthur G. McKee organization, Wilbur Watson & Associates and the McGeorge Engineering Co. He was a graduate of Case School of Applied Science, Cleveland, Ohio, 1918, with a degree in civil engineering.

Donald Blair, 60, supervising engineer of the chief architect's branch of the Dominion Department of Public Works died at Ottawa, Ont., Nov. 22. Former chief engineer of the Federal District Commission, Mr. Blair, transferred to the Public Works Department in 1946.

Fred Harrison, 87, Hawaii builder, said to have been the first to use cut lava blocks in construction, died in Honolulu Nov. 11. He constructed mills on 10 sugar plantations and built many Honolulu landmarks, including the Bank of Hawaii, the Oahu Railway depot and American Factory Building. A native of England, Harrison went to Hawaii in 1879 after being trained in the public schools and the bricklayers' trade in Westchester County, N. Y., where his family had settled on its immigration to the United States.

George S. Gandy, Sr., 90, builder of Gandy Bridge across Tampa Bay between St. Petersburg and Tampa, Fla., died at St. Petersburg Nov. 25.

Addams Stratton McAllister, 75, engineer and former assistant director of the National Bureau of Standards, died Nov. 26 at Clifton Forge, Va. He had a long career as an engineer and scientist until two years ago, when he retired from the Bureau of Standards. He was the author of several books and articles on engineering subjects. He served on a committee of the Council of National Defense and during the first world war was associated with the Ordnance Department of the Army.

New buildings rising at University of Toronto

New buildings costing almost $7,000,000 are at present under construction on the main campus of the University of Toronto, Toronto, Ont.

Long planned, the buildings will help to meet the critical shortage of accommodation caused by the large numbers of ex-service undergraduates now at the university. Although building progress has been slowed up by the current shortages of materials and manpower, it is hoped to have the more urgently needed buildings ready for classroom use, at least, by the fall of 1947.

MAJOR MEETINGS

Highway Research Board, 26th annual meeting, National Research Auditorium, Washington, D. C., Dec. 5-8.

National Society of Professional Engineers, annual meeting, Atlanta-Biltmore Hotel, Atlanta, Ga., Dec. 7.

American Association of State Highway Officials, annual meeting, Biltmore Hotel, Los Angeles, Calif., Dec. 17-20.

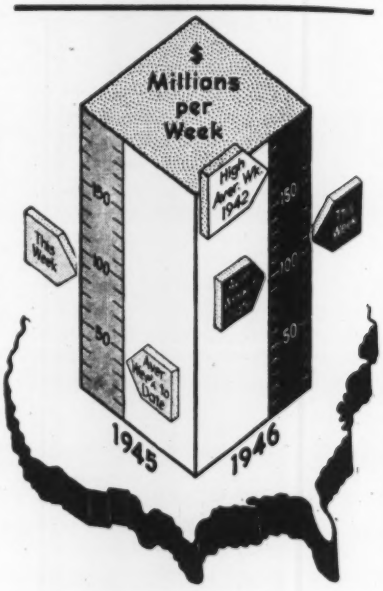
American Society of Civil Engineers, annual meeting, Commodore Hotel, New York, N. Y., Jan. 15-18.

Associated General Contractors, annual convention, Stevens Hotel, Chicago, Ill., Jan. 27-30.

Canadian Construction Association, 28th annual convention, Niagara Falls, Ont., Jan. 14-16.

National Crushed Stone Association, annual meeting, Edgewater Beach Hotel, Chicago, Ill., Jan. 27-29.

CONSTRUCTION ACTIVITY



As Reported this week to... *Engineering News-Record*

CONTRACT VOLUME

Continental U. S. Only (Thousands of Dollars)

	Week of Dec. 5 1946	Cumulative 1946 (49 wks.)	Cumulative 1945 (49 wks.)
Federal	$5,591	$618,910	$733,266
State & Mun.	28,688	1,351,448	371,616
Total Public	$34,279	$1,970,358	$1,104,882
Total Private	71,109	2,982,473	1,026,858
U. S. Total	$105,388	$4,952,831	$2,131,740

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Dollar Volume (Thousands)

Type of Work	This Week	Cumulative 1946 (49 wks.)	Cumulative 1945 (49 wks.)
Waterworks	$1,353	$102,834	$59,514
Sewerage	2,758	108,527	32,757
Bridges	871	123,460	43,984
Highways	19,778	745,359	215,031
Earthwork, Waterways	655	344,147	54,572
Buildings, Public	7,741	395,875	452,153
Industrial	24,904	994,658	575,917
Commercial	43,840	1,802,014	335,993
Unclassified	3,488	335,957	361,819

NOTE: Minimum size projects included are: Waterworks and waterway projects, $22,500; other public works, $40,000; industrial buildings, $55,000; other buildings, $205,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1946 (49 wks.)	Cumulative 1945 (49 wks.)
NON-FEDERAL	.....	$714,763
Corporate Securities	.....	190,811
State and Municipal	Current	359,352
RFC Loans	figures	24,600
REA Loans	not	60,000
Fed. Aid Highway	available	79,000
FEDERAL	.....	1,049,898
Total Capital	.....	$1,763,661

ENR INDEX NUMBERS

Index Base=100		1913	1926
Construction Cost	Dec. '46	368.10	176.95
Building Cost	Dec. '46	278.49	150.54
Volume	Nov. '46	164	72.

CONSTRUCTION REPORTS

Bids Asked — Low Bidders — Contracts Awarded

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager *J. A. MAHONEY, Reports* *J. V. McEWEN, M. R. ROESSLER, Statistics*

WATER SUPPLY

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 10

Minn., Altura—Village, H. J. Wilson, clk., WW imprvs., incl. drilling deep 8 in. well, 5,845 lin. ft. 4 and 6 in. c.i. watermains, appurtenances, 50,000 gal. steel tank and 100 ft. tower, etc. $42,000. E. G. Briggs, 1643 Como Ave., St. Paul, engr.

Bids Asked December 16

Mass., Westboro — Town, Water Comn., Westboro, WW sys., incl. pump. station, appurtenances, Bowman Street Station. Metcalf & Eddy, 1300 Statler Bldg., Boston, engrs.

Bids Asked December 18

Pa., Selinsgrove—Dpt. Property & Supplies, Harrisburg, erecting boilers and equip. and constructing raw water sys. at Selinsgrove State Colony for Epileptics. $200,000. Plans deposit $7.50. Gannett, Fleming, Corddry & Carpenter, Inc., 600 N. 2 St., Harrisburg, consult. engr. J. A. Warlow, c/o owner, ch. engr.

Tex., Port Arthur—Jefferson County Drainage Dist. 7, Port Arthur, 4 pump. units. $50,000. Smith & Norris, Harris Bldg., engrs. CD 8/22—ENR 9/5.

Bids Asked December 20

N. Y., New York—Comr. Water Supply, Gas & Electricity, Municipal Bldg., Zone 7, iron removal filters and pump. plant. Plans deposit $5; hauling, laying watermains, appurtenances, furnishing, del., installing drainage and gas piping, etc., Plans deposit $1, all foregoing for Rockaway Park Iron Removal and Pumping Plant, St. Marks Ave., Rockaway Park, Queens Boro.

LOW BIDDERS

Tex., Harlingen—City, H. Ramsey, mayor, no bid opening Nov. 8, WW. sys. imprvs. $40,000. A. Tamm, 316 E. Van Buren St., engr. CD 10/22—ENR 10/24.

Tex., Tyler—City, Nov. 15, developing water supply well and pump. unit from Texas Water Wells, Inc., 951 McCarty St., Houston. $28,779. Est. $30,000. CD 10/28—ENR 10/31.

Tex., Weslaco—City, Nov. 25, concrete, tile water filtration plant, 1.75 m.g.d. and distr. lines, from Mitchell Darby Constr. Co., Pharr. $86,533 and approx. $33,000 respectively. Valco, Inc., M. & M. Bldg., Houston, engr. CD 11/6—ENR 11/14.

Wash., Manchester—Manchester Imprvt. Dist., Nov. 15, water sys., from Superior Constr. Co., 4610 37 Ave. S.W., Seattle. $55,182. Est. $67,000. CD 11/7.

Wash., Tacoma—City, City Hall, Nov. 18, c.i. watermains in L.I.D. 5119, from Valley Constr. Co., 7708 Ranier Ave., Seattle. $124,214. Bids 11/18.

CONTRACTS AWARDED

Ill., La Salle—City, City Hall, laying, providing suction pipe between 2 wells, in river bottom and city WW, to Santucci Const. Co., 5044 Carol St., Skokie. $37,435. Bids 11/18.

Minn., Waldorf—Village, J. Fogal, clk., watermains, elevated steel tank and sewer mains, to H. H. Frankamp, Mankato, $62,642; tank, to Pittsburgh-Des Moines Steel Co., 1015 Tuttle St., Des Moines, Ia., $12,717. Bids 11/12. CD 10/24—ENR 10/31.

N. C., Ahoskie—Town, watermains, sewer lines, to F. D. Cline Constr. Co., Box 349, Raleigh. $97,872. Bids 11/25. CD 11/7—ENR 11/14.

N. C., Lexington—City, French H. Smith, mgr., water purification plant addns., to V. B. Higgins Co., Greensboro. $224,940. Bids 11/5. CD 10/18—ENR 10/24.

N. C., Salisbury—City, WW. imprvs., 500 cu. yd. concrete fdns. c.i. pipe, valves, valves vaults, fittings, drain lines, to A. H. Guion, Wilkinson Blvd., Charlotte, $31,835; two 250,000 gal. tanks and towers to Chicago Bridge & Iron Works, 332 S. Michigan St., Chicago, Ill., $172,600. Bids 11/22. CD 11/11—ENR 11/14.

Wis., Fennimore—City, well, to J. Egerer, 1012 N. 3 St., Milwaukee, Zone 3, $15,413; tank, to Chicago Bridge & Iron Co., 332 S. Michigan St., Chicago, Ill. $21,550. CD 10/29—ENR 10/31.

Ore., Hillsboro—City, City Hall, 53,000 ft. 18 in. steel water pipe for supply line, to Beall Pipe & Tank Corp., 1945 N. Columbia Blvd., Portland. $206,445. Bids 11/18.

Ont., King—Village, A. Wellesley, secy., WW sys., to International Water Supply, Ltd., 12 Maitland St., London. Approx. $45,000. Proctor, Redfern & Laughlin, 36 Toronto St., Toronto, engrs.

Ont., Woodstock—Dpt. Veterans Affairs, 465 Bay St., Toronto, pump house, watermains, house services, to Weston Constr. Co. Ltd., 11 King St. W., Toronto. Approx. $80,000. CD 10/10/46.

Ont., Woodstock — Dom. Govt., Ottawa, watermains, domestic connections, pump house, to Weston Constr. Co. Ltd., 11 W. King St., Toronto. Est. $60,000. Dpt. Veteran Affairs, Daly Bldg., Ottawa, engr.

Que., L'Ancienne Lorette—Municipality, reservoir and watermains, day labor. $35,000.

Sask., Weyburn—Municipality, filtration plant, to Poole Constr. Co. Ltd., Regina. $50,000. CD 11/19/45—ENR 12/13/45.

SEWERS, WASTE DISPOSAL

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 9

N. Y., Jamaica—Dpt. P. Wks., Municipal Bldg., New York, Zone 7, access platforms to sewage pumps and cone check valves, Contr. R-8, alterations and addns., Contr. R-5 to Jamaica Sewage Treatment Works, 131 St. and 155 Ave., Queens Boro. Plans deposit $5 each.

N. Y., New York—Dpt. P. Wks., Municipal Bldg., New York, Zone 7, sludge pumps and ventilating sys., Contr. R-10, electrical work for pumps, etc. Contr. R-11, plans deposit $5, repairing effluent structures for aeration tanks. Contr. R-12, all foregoing for Ward's Island Sewage Treatment Works.

Bids Asked December 17

Calif., Los Angeles—Los Angeles Co., Hall of Records, 2.37 mi. vitr. clay sanitary sewers, Liblen Ave., etc. $53,470. CD 10/21—ENR 10/31.

PROJECTS COVERED

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks $22,500; other public works $40,000; industrial buildings $55,000; other buildings $205,000.

Classes of Construction

(Name in order of Listing)

Water Supply	Latin America
Sewers, Waste Disposal	Public Buildings
Bridges	Commercial Buildings
Streets & Roads	Industrial Buildings
Earthwork, Waterways	Unclassified

Stages Reported

PROPOSED WORK: Including appointment of engineers or architects.

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.;

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Symbols and Abbreviations Include:

♦	Federal Government
★	Project of $1,000,000 or over.
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily

Minn., Minneapolis—State Dpt. Administration, P. T. Peterson, dir., 19 State Capitol, St. Paul, sanitary sewers and interceptor, lift station, etc., at Minnesota Soldiers Home. $70,000. Plans deposit $10. Banister Engrg. Co., 1547 University Ave., St. Paul, engr.

Bids Asked December 18

Ill., Peoria—Sanitary Dist., foot of Darst St., sanitary sewers, in north part of Peoria and outskirts, Proj. 4S.D, $25,000-$30,000; and El Vista, in northwest part of Peoria and outskirts. Proj. 6S.D., $110,000. Bids 9/3 rejected. J. R. Longley, c/o owner, ch. engr. CD 8/27—ENR 8/29.

Minn., Waldorf—Village, J. Fogal, clk., sewage treatment plant, WW pump house, drill deep well. $40,000. P. C. Bettenburg & Co., 1437 Marshall Ave., St. Paul, engr. CD 2/7—ENR 2/21.

♦**Tex., Galveston**—Federal Works Agency, F.W.A. Bldg., incinerator at Marine Hospital.

Bids Asked December 23

Calif., Sacramento—Sacramento Co. Sanitation Dist. 1, Court House, installing outfall sewer line exten., Fruitridge Rd. Over $40,000. E. A. Fairbairn, Court House, co. engr. H. N. Jenks, 345 Madrono Ave., Palo Alto, consult. engr. CD 6/20—ENR 7/11.

Bids Asked March 15

Ia., Carroll—City, A. N. Neu, mayor, Carroll, sewer imprvs., incl. Sect. 1, 706 ft. 8 in. vitr. clay sewers, 2 manholes; Sect. 2, 1,593 ft. 10 in. and 2,300 ft, 8 in. vitr. clay sewers, lift stations, two 150 gpm. sewage pumps, 730 ft. 6 in. c.i. force main; Sect. 3, 3,690 ft. 10 and 12 in. vitr. clay sewers, 16 brick manholes, etc. $60,000. Tentative date. Broan Engrg. Co., KP Bldg., Des Moines, engr.

SOON LETS CONTRACT

Mass., Taunton—Verney Taunton Mills, Inc., 160 Middleboro Ave., soon lets contract sewage and waste industrial disposal plant, incl. bituminous fibre piping and concrete tanks, etc. $40,000. Metcalf & Eddy, 1300 Statler Bldg., Boston, engrs.

LOW BIDDERS

Calif., Sacramento—City, City Hall, Nov. 22, sanitary sewers along Burns Slough from 41 St. to River Park, from A. Teichert & Son Inc., Box 1133. $41,233. F. Klaus, City Hall, Sacramento, city engr.

Calif., Huntington Beach—City, City Hall, Nov. 18, storm sewers Ocean, 16 to 20 Sts., Huntington Beach, from P. & J. Artukovich, 13305 S. San Pedro St., Los Angeles. $41,900. CD 12/12/45—ENR 12/27/45.

Md., Baltimore—City, c/o Bd. Awards, City Hall, Nov. 14, storm water drains, from Frank Augolozzi & Sons, 123 S. High St. $65,552.

★**N. Y., Kew Gardens**—President Queens Boro, 120-55 Queens Blvd., Zone 15, Nov. 26, sewer in Avery Ave., Contr. 1, from C. F. Vachris, Inc., 827 Remsen Ave., Brooklyn Zone 12, $2,234,156*** Avery Ave., Contr. 2, and 137 Ave., Contr. 10, from Delhan Constr. Co., Inc., 6010 15 Ave., Brooklyn, Zone 19, $2,034,852 and $1,687,234 respectively *** Avery Ave., Contr. 3, from Tully & DiNapoli, Inc., 1 Bridge Plaza, Long Island City, $2,426,115. Received no bids. Nov. 26, sewer Flushing Meadow Park, $250,762. CD 11/41—ENR 11/21.

Tex., Harlingen—City, sanitary sewerage sys. extens. from Wahrmund-Logan Co., 422 Hays St., San Antonio. $34,752. No bids opened Nov. 19, disposal plant imprvs. $49,000. A. Tamm, 316-17 E. Van Buren St., engr. CD 11/1—ENR 11/14.

Wash., Mount Vernon—City, City Hall, Nov. 13, sewer lines from C. V. Wilder, 2006 State St., Bellingham, $51,070. Est. $45,000. Parker & Hill, Smith Tower, 2 Ave. and Yesler Way, Seattle, Zone 4, engr.

Wash., Tacoma—City, City Hall, Nov. 25, 1 story, 22x45 ft. rein.-con. pump. station, from Industrial Engineers & Contractors, 711 Middle Waterway, $84,330. Est. $90,000.

CONTRACTS AWARDED

Calif., Hughson—Hughson Sanitary Dist., 365 Hughson Ave., collection sewers and pipe for domestic and industrial sewage facilities, to Manuel Smith, 313 Syndicate Bldg., Oakland. $77,411. CD 10/4—ENR 10/10.

D. C., Wash.—Distr. Comrs., District Bldg., Wash., storm water sewer, vicinity Alabama Ave. and Bowen Rd. S.E., to Able Contractors Inc., 1423 N. Quincy St., Arlington, Va. $44,343. Bids 11/1. CD 10/31—ENR 11/7.

SEWERS, WASTE DISPOSAL (Contracts Awarded, Cont'd.)

Ill., Griggsville—City, City Hall, sewage disposal plant complete with auxiliaries, appurtenances, etc., to T. J. Sheehan Co., 2233 Olive St., St. Louis 3, Mo. **$46,000.** Est. approx. $50,000. Bids 11/22. CD 11/11—ENR 11/14.

Ill., Kankakee—City, City Hall, laying 20,000 lin. ft. sewer pipe, to John Doherty Co., 7956 S. Vernon St., Chicago. **$135,954.** CD 9/9—ENR 9/19.

Ill., Mounds—City, E. A. Stokes, mayor, City Hall, sewage disposal plant complete, WW imprvs., etc., to Weldon Well Co., Cape Girardeau, Mo., **$103,360;** steel tank and tower, to Chicago Bridge & Iron Co., 332 S. Michigan St., Chicago. **$23,700.** Bids 11/25. CD 11/8—ENR 11/14.

Kan., Norton—City, c/o City Clerk, sanitary sewer extens. to Purtzer & Dutoon, Concordia. **$80,129.** Bids 11/19. CD 10/23—ENR 10/31.

Minn., Cannon Falls—City, W. L. Eller, clk., sanitary sewer and water main extens., to Phelps Drake Co., 1415 8 St. S.E., Minneapolis. **$42,212.** Bids 11/12. CD 10/24—ENR 10/31.

★**Tex., Austin**—State Hy. Comn., Austin, storm sewers, appurtenances in Houston, to R. P. Farnsworth & Co., Inc., P.O. Box 74, Houston. **$1,203,826.** CD 10/25—ENR 10/31 under LB.

B. C., Penticton—Municipality, approx. 6 mi. sewer mains and laterals, to Howe & McCarthy, Ltd., Penticton. **$78,936.** Bids 11/19, awarded 11/25. Underhill, Underhill & Fraser, 413 Granville St., Vancouver, engrs. CD 11/7.

Que., St. Jerome—Municipality, sewers, day labor. **$40,000.**

BRIDGES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 11

Maine—State Hy. Comn., Augusta, Penobscot River bridge between Enfield and Howland, FAS S-274 (4), Contr. 3, Penobscot Co. Plans deposit $15.

Mich., Milford—Huron Clinton Metropolitan Auth., 2456 Penobscot Bldg., Detroit, 126 ft. rein.-con. bridge with clear roadway 44 ft. wide and two 6 ft. sidewalks. Plans deposit $20. G. W. McCordic, 2456 Penobscot Bldg., Detroit, engr.-dir.

Bids Asked December 12

Florida—State Hy. Dpt., Tallahassee, widening 90 ft. concrete bridge, over Marcus Bayou, Rd. 10 alt., S.P., Job 4802-106, Escambia Co., $15,000; constructing one 75.5 ft. and one 345 ft. bridge of concrete slabs on treated timber pile bents, and constructing sand bituminous road mix pavement, etc. 1.78 mi. Rd. 415, between St. Johns River and point approx. 1.78 mi. northeast, S.P., Job 7912-105, Volusia Co., $90,000. H. P. Coloney, state hy. engr.

Texas—D. C. Greer, engr., State Hy. Comn., Austin, widening bridge 0.101 mi. Hy. 225, Control 502-1-9; Jims Bayou Bridge and approaches 0.389 mi. Hy. 288, Control 111-1-20, both Harris Co.; constructing Colorado River Bridge structure 0.645 mi. Hy. 71, Control 266-2-12 Contr. 1, Colorado Co.

Bids Asked December 13

Kansas—State Hy. Comn., Pratt, Br. 2, two 10x5x26 ft. rein.-con. bridge S-270 (1) and Br. 1, two 10x5x26 ft, S-270 (1), both Harper Co.; Br. 7.8, two 10x10x32 ft. F-609 (2); Br. 6.9, three 10x7x32 ft. F-609 (2); Br. 4.9 30x40x40x40x30 ft. continuous slab, F-609 (2), all foregoing Pratt Co. R. C. Keeling, Topeka, engr.

Bids Asked December 15

Ind., Somerset—Wabash Co. Comrs. Office, Court House, **Wabash**, bridge, over Mississinewa River. **$90,000.**

Bids Asked December 30

Ont., Toronto—Toronto & York Roads Comn., 57 Adelaide St. E., steel truss bridge on Bayview Ave. leading to Sunnybrook Hospital, $750,000. H. C. Rose, c/o owner, and Proctor, Redfern, & Laughlin, Excelsior Life Bldg., engrs. CD 2/31—ENR 3/7.

LOW BIDDERS

Alabama—State Hy. Dpt., Montgomery, Nov. 22, bridges, Proj. S-663 (1), Barbour Co., from Goodwyn & Murphree, Troy. **$61,922.**

California—State Div. Hys., 808 State Bldg., Los Angeles, Nov. 21, rein.-con. box girder over-crossing, Los Angeles Co., from W. J. Distell, 3110 W. 43 Pl., Los Angeles. **$140,733.** CD 10/28—ENR 10/31.

Florida—State Hy. Dpt., Tallahassee, Nov. 21, bridges, Duval Co., from Okeechobee Const. Co., 140½ Stockton St., Jacksonville. **$117,975** ***Alachua Co., from Duval Eng. & Constr. Co., E. Adam St., Jacksonville, **$58,291**** Nassau Co., from Guy W. Sackett, Inc., 257 W. 5 St., Jacksonville, **$73,354.** CD 11/6—ENR 11/14.

★**Kan., Kansas City**—City and Wyandotte Co., c/o Bd. Comrs., H. H. Thorn, co. clk., Court House, Nov. 18, widening, paving, raising three river spans on Central Ave. viaduct, removing, replacing east approach, raising portion west approach and removing, replacing roadway deck on west approach, etc., from Massman Constr. Co., 20 W. 9 St., Kansas City, Kan., **$1,445,895,** Est. $1,448,360. CD 10/16—ENR 10/24.

Louisiana—State Dept. Hys., Baton Rouge, received no bids Nov. 20, repairing bridges, etc. Jefferson Davis Parish. CD 11/7—ENR 11/14.

Md., Towson—Comrs. Baltimore Co. Court House, bridge, approaches over Bear Creek at Wise Ave., incl. removing existing structures, from McLean Contg. Co., Fidelity Bldg., Baltimore. **$704,763.** G. D. Andrews, Court House, Towson, owner's engr. J. E. Greiner Co., 1201 St. Paul St., Baltimore, engr. CD 2/7/45—ENR 2/22/45.

New York—Henry A. Cohen, dir. Bureau Contrs. & Accounts, The Alfred E. Smith State Office Bldg., Albany, received no bids Nov. 27, bridge 9.28 mi. R. C. 46-43, Livingston Co. CD 11/13—ENR 11/21.

Pennsylvania—State Hy. Dpt., Harrisburg, rejected bids Sept. 20, bridge, approaches, Snyder Co. L. B. **$171,802.** Will readvertise. CD 9/24—ENR 9/26, under LB.

South Carolina—State Hy. Dpt., Columbia, Nov. 19, 2 rein.-con. bridges, etc., Oconee Co., from V. P. Loftis Co., Builders Bldg., Charlotte, N. C., **$76,801***rein.-con. bridge, etc., Hampton Co., from Espy Paving & Constr. Co., 108 E. Bay St., Savannah, Ga., **$46,302***rein.-con. bridge, Hampton Co., from Wannamaker & Wells, Inc., Orangeburg, **$43,240***2 rein.-con. bridges, Chesterfield Co., from F. A. Triplett, Chester, **$50,603.** CD 11/7—ENR 11/14.

South Carolina—State Hy. Dpt., Columbia, rejected bids Nov. 19, rein.-con. bridge Orangeburg Co. L.B. **$25,486;** 2 rein.-con. bridges, Oconee Co. L.B. **$76,801;***1 rein.-con. bridge, Hampton Co. L.B. **$46,302;** 1 rein.-con. bridge, Hampton Co. L.B. **$43,240;***1 rein.-con. bridge Clarendon Co. L.B. **$25,635.** CD 11/27—ENR 12/5, under L.B.

Washington—State Hy. Dpt., Olympia, cancelled bids to have opened Dec. 10, culvert and cattle pass on State Historical Road 1, Pierce Co. CD 11/27.

Wash., Montesano—Grays Harbor Co., Courthouse, bridge on Lund Rd., from Grays Harbor Constr. Co., Aberdeen, **$48,000.** Est. $25,000.

CONTRACTS AWARDED

Kentucky—State Dpt. Hys., Frankfort, imprv. 0.129 mi. Harlan Co., to R. R. Dawson, Bloomfield. **$42,861.** CD 11/20—ENR 11/28, under LB.

STREETS AND ROADS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 10

Indiana—State Hy. Comn., J. H. Lauer, chn., Indianapolis, bituminous resurfacing 6.67 mi. State Rd. 41, Benton Co.; 13.18 State Rd. 12 in Fremont, Lake and Porter Counties; 4.73 mi. State Rd. 37, Madison and Grant Counties; 10.05 mi. State Rd. 62, Posey Co.; 9.63 mi. State Rd. 52, Rush Co.; concrete widening, bituminous resurfacing 17.11 mi. State Rds. 27 and 116, Adams Co.; 5.74 mi. State Rds. 26, 31 and 150, Bartholomew, Floyd and Jackson Counties; 12.36 mi. State Rd. 50, Jennings and Ripley Counties; 8.71 mi. State Rd. 30, La Porte Hy. Dist., La Porte and Starke Counties; 11.15 mi. State Rd. 150, Orange and Martin Counties; 7.8 mi. State Rds. 2, 20 and 331, St. Joseph Co.; concrete widening, bituminous resurfacing 13.72 mi. State Rd. 41, Fountain Co.; 11 mi. State Rds. 20, 827 and 120, Steuben Co.; bituminous widening, resurfacing 10.78 mi. State Rd. 13, Grant and Wabash Counties. C. E. Vogelsand, c/o owner, ch. engr.

Bids Asked December 11

Louisiana—State Dpt. Hys., Baton Rouge, grading, drainage structures, concrete paving, etc. 1.418 mi. streets in Oakdale, State Routes 24G, 140 and C-2145, S. P. 715-00-21, Allen Parish. Plans deposit $5 without cross sections and $9.50 with cross sections.

Louisiana—State Dpt. Hys., D. Y. Smith, dir., Baton Rouge, washed gravel and reef shell furnished spot-dumped on certain public roads, S.P. 703-02-07, St. Bernard Parish.

Bids Asked December 12

Florida—State Hy. Dpt., Tallahassee, sand bituminous road mix pavement, etc. 8.035 mi. Rd. 149 between Rd. 57 and Georgia State Line, S. P. Job 5403-102, Jefferson Co., $90,000; clearing, grubbing, grading, constructing sand bituminous road mix pavement, etc. 2.164 mi. Rd. 216, between Rd. 15 and Rd. 100, S. P. Job 7609-101, Putnam Co., $50,000; Ocala rock base double course, 8 in. thick, with hot binder course one inch thick and asphaltic concrete surface course, Type 1, one in. thick 63 ft. wide, curb and gutter, sidewalk, drainage structures, etc., 0.762 mi. Rd. 600, between Canal Rd. and Ridgewood Ave., in Daytona Beach, F.A.P.-FAI-117 (3), Jobs 7906-203 and 7906-106, Volusia Co., $275,000. H. P. Coloney, state hy. engr.

Texas—State Hy. Comn., D. C. Greer, hy. engr., Austin, hot mix asphaltic concrete paving and single asphalt surface treatment 9.045 mi. Hy. 356 Control 92-7-1, Dallas Co.; grading, structures, flexible base and prime coat 0.985 mi. Hy. 44, Control 373-2-11 Nueces Co.; asphalt underseal for concrete paving 15.044 mi. Hy. 81 and 287, Control 14-3-0 and 172-1-9, Johnson and Tarrant Counties; grading, structures 3.37 mi. Hy. 75, Control 92-2-15, Dallas Co.; grading, structures, flexible base and double asphalt surface treatment, 9.999 mi. Hy. 82, Control 292-6-3, Pecos Co.; grading, structures, flexible base and single asphalt surface treatment 11.02 mi. Hy. F.M. 126, Control 733-3-1 and 733-2-1, Taylor and Jones Counties; grading, drainage, structures, roadbed treatment and single asphalt surfacing Hy. F.M. 202, Control 777-4-1, Somervell Co.; grading, structures, soil asphalt base and single asphalt surface treatment 6.442 mi. Hy. F.M. 429, Control 697-3-1, Kaufman Co.; grading, structures, soil asphalt base and base preservative 8.901 mi. Hy. F.M. 246, Control 998-1-1 and 998-2-1, Freestone and Navarro Counties; grading, structures, flexible base and base preservative 9.634 mi. Hy. F.M. 524 S. 552 (1), Brazoria Co.

Bids Asked December 13

Kansas—State Hy. Dpt., Pratt, grading eight type surfacing 5.839 mi. S-6 (1), Cowley Co.; 10.563 mi. F-609 (2), Pratt Co.; light type surfacing, subgrade reconditioning 7.176 mi. S-271 (1), Butler Co.

Bids Asked December 19

Florida—State Rd. Dpt., Tallahassee, bituminous retread surface course, etc., 1.572 mi. Rd. 5, S.P. Job. 7206-105, Duval Co., $60,000; 0.5 mi. Rd. 49, between A.C.L. R.R. in Trenton and point approx. 0.505 mi. south S.P. Job 3103-106, Gilchrist Co., $25,000; lime rock widening strips with bituminous retread surface course over entire width of pavement 27.739 mi. Rd. 45, between Sarasota and Venice on Rd. 45 and Siesta Key Rd. and Ablee Rd., S.P. Jobs 1702-108; 1708-102 and 1710-102, Sarasota Co., $325,000; widening, reconstructing drainage structures Rd. 200 between Starke and Baldwin, S.P. 2801-110, 7103-103 and 7214-108, Clay and Duval Counties, $110,000; bituminous surface treatment, Type 2 on existing rock base 3.508 mi. Rd. 823, between Rd. 84 and point approx. 3.508 mi. south, S.P. Job. 7619-102, Broward Co., $20,000; widening shoulders along existing 22 ft. S.B.R.M. pavement 2.26 mi. Rd. 46, between St. Johns River and point approx. 2.306 mi. southeast, S.P. Job. 7914-104, Volusia Co., $30,000; constructing lime rock base widening strips with asphaltic concrete surface over width of pavement 13.6 mi. Rd. 600, between Maitland and Sanford, S.P. Jobs 7503-105 and 7701-108, Orange and Seminole Counties, $225,000. H. P. Coloney, state hy. engr.

Bids Asked December 20

N. Y., Kew Gardens—President Queens Boro, Queens Boro Hall, 120-55 Queens Blvd., Zone 15, regulating, grading, constructing grade separation structures, retaining walls, sewer and drainage facilities, etc. in Connecting Hy. from 30 to 32 Aves. Plans deposit $35.

Bids Asked

Conn., Fairfield—Town, Hy. Dpt., Town Hall, Fairfield, elevating South Benson Rd., to prevent tide overflow, between Fairfield Beach and Craig Rd. S. E. Butzko, Town Hall, Fairfield, engr.

LOW BIDDERS

★**Alabama** — State Hy. Dpt., Montgomery, Nov. 22, from Carlton Contg. Co., Albany, Ga., imprv. S-188 (1), Conecuh Co., **$108,774;** S-56 (1), Cullman Co., **$164,012;** SACP-620-A, Clarke Co., **$130,946;** SACP-616-A, Washington Co., **$103,078***from Southern Contg. Co., Ozark, S-172 (1), Covington Co., **$107,602;** S-634, Covington Co., **$57,012;** SACP-725, Barbour Co., **$71,764***from Forcum-Jeame Co., Dyersburg, Tenn., S-352 (6), Lawrence Co., **$111,831;** S-53 (1), Colbert Co., **$290,162***from Moss-Thornton Co., Jasper, imprv. S-657, A&B, Jackson Co., **$507,289;** S-406 B, Dekalb and Marshall Counties, **$186,720***from Georgia-Alabama Paving Co., Columbus, Ga., S-167 (1), Butler Co., **$68,300***from MacDonald Constr. Co., Northside Dr. N. W., Atlanta, Ga., S-351 (2), Limestone Co., **$86,972***from F. L. Bray Constr. Co., 107 Elmira St., Mobile, S-30 (3), Monroe and Wilcox Counties, **$159,168***from Pitts Douglas & Co., Anniston, S-72 (1), Dekalb Co., **$207,750***from M. R. Thomason, 121 S. Lewis St., Montgomery, S-31 (1), Autauga Co., **$291,946***from Evans & Walters, Quitman, Miss., S-51 (1), Choctaw Co., **$241,271***from W. M. Ford Constr. Co., Lafayette, S-175 (1), Escambia Co., **$55,170***from Noonan Constr. Co., 814 E. Gregory St., Pensacola, Fla., S-404, B, Escambia Co., **$88,008***from Hooper Constr. Co., 1125 Kings Ave. S., Jacksonville, Fla., S-663 (1) & (2), Barbour Co., **$243,346.** CD 11/13.

Ark., Jonesboro — Bd. Imprvt. 36, Jonesboro, concrete paving, curbing with minor drainage structures and roadway excav. 0.8 mi. Craighead Co., from S. J. Cohen Co., Blytheville. **$42,372.** F. Haywood, Jonesboro, engr. CD 9/1/43—ENR 9/9/43.

California—State Div. Hys., 808 State Bldg., Los Angeles, Nov. 21, imprv. 4.3 mi. Ventura Co., from MacDonald & Kruse, 816 Allen Ave., Glendale. **$76,804.** Est. over $40,000. CD 10/28—ENR 10/31.

Calif., Los Angeles—Los Angeles Co., Hall of Records, Nov. 19, imprv. Century Blvd., Western to Prairie Aves., near Inglewood, from Fred D. Chadwick, 4335 Brewster Ave., Lynwood. **$229,921.** Est. over $100,000. CD 10/28—ENR 10/31.

STREETS AND ROADS (Low Bidders, Cont'd.)

Florida—State Hy. Dpt., Tallahassee, Nov. 21, imprv. 8.26 mi. Polk Co., from J. W. Conner & Sons, 40 St. and E. Broadway Ave., Tampa, **$98,916***9.11 mi. Manatee Co., from Macasphalt Corp., Lakeland, **$111,079***0.096 mi. Bay Co., from Smith Eng. & Constr. Co., W. Pensacola St., Pensacola, **$52,978.** CD 11/6—ENR 11/14.

Idaho—State Hy. Dpt., Boise, Nov. 22, imprv. 3.728 mi. Kootenai Co., from Max Kuney, N. 120 Ralph St., Spokane, Wash. **$202,911.** Est. $195,000. CD 11/13.

Massachusetts—Commonwealth of Mass., Boston, Nov. 27, reconstructing Middlesex Fellsway, Winchester, from John P. Condon Corp., Watertown. **$64,651.** CD 11/22.

New York—Henry A Cohen, dir. Bureau Contrs. & Accounts, The Alfred E. Smith State Office Bldg., Albany, received no bids Nov. 27 imprv. 11.18 mi. Onondaga Co.; 4.99 mi. Schoharie Co.; 0.30 mi. New York Co.

New York—Henry A. Cohen, dir. Bureau Contrs. & Accounts, Albany, Nov. 27, imprv. 9.37 mi. and 1.91 mi. Chemung Co. from Bero Engr. & Constr. Corp., Mckinley Bldg., Buffalo, **$1,296,193,** est. $1,371,000 and **$158,172** est. $161,000 respectively***1.83 mi. Ontario Co. from Mohawk Paving Co. Inc., Geneva, **$253,-555,** est. $262,000***4.36 mi. Nassau Co. from Davidson Electric Co., 1265 Atlantic Ave., Brooklyn, **$77,334,** est. $74,000. Cancelled bids to have been opened Nov. 27, imprv. 2.86 mi. Monroe Co., will readvertise. CD 11/13—ENR 11/21.

Ohio—State Hy. Dpt., Columbus, rejected bids Nov. 19, imprv. 0.123 mi. Huron Co. L. B. **$20,110.** Received no bids Nov. 19, imprv. 0.391 mi. Belmont Co., **$12,620;** 0.166 mi. Seneca Co., **$4,800;** 0.17 mi. Butler Co., **$49,600;** 0.293 mi. Warren Co., **$24,100.** CD 11/8—ENR 11/14.

Pennsylvania—State Hy. Dpt., Harrisburg, rejected bids Oct. 25, imprv. 6.283 ft. Cambria Co. L.B. **$212,627***3,536 ft. Clearfield Co. L.B. **$349,397.** Will readvertise. CD 10/29—ENR 10/31, under LB.

Pennsylvania—State Hy. Dpt., Harrisburg, rejected bids Aug. 30, imprv. 15,491 ft. Tioga Co. L.B. **$258,958.** Will readvertise. CD 9/4—ENR 9/12, under LB.

★**Pennsylvania**—State Hy. Dpt., Harrisburg, Nov. 22, imprv. 43,507 ft. Wayne Co., from H. R. Miller Co., Lancaster, **$868,-031***3,030 ft. Westmoreland Co., from Coral Constr. Corp., 1820 Graham Blvd., Pittsburgh, **$188,647***13,778 ft. Westmoreland Co., from Latrobe Road Constr. Inc., Ligonier, **$418,477***19,076 ft. Tioga Co., from Mayer Bros. Constr. Co., 1225 W. 18 St., Erie, **$110,776***12,205 ft. Potter Co. and 23,663 ft. Bradford Co., from James H. Marshall & William M. Viall, Harrisburg, **$215,729** and **$348,789** respectively***2,133 ft. Luzerne Co., from J. Banks Constr. Co., Wilkes-Barre, **$63,253***3,536 ft. Clearfield, Co., from H. T. Osburn & Co., Inc., Franklin, **$302,458***715 ft. Beaver Co., from Beaver Asphalt Paving & Constr. Co., New Brighton, **$62,127***1,301 ft. Beaver Co., from Dinardo, Inc., 331 Bouquet St., Pittsburgh, **$73,781***9.921 ft. Armstrong Co., from The Ray F. Yount Co., Kittanning, **$436,316***25,582 ft. Huntington Co., from G. M. Brewster & Son, Inc., Bogota, N. J., **$2,347,190** Received no bids Nov. 22, imprv. 3.235 ft. Cambria Co., 16,622 ft. Franklin Co.; 1,011 ft. Potter Co. Will readvertise. CD 11/11—ENR 11/14.

★**South Carolina**—State Hy. Dpt., Columbia, Nov. 19, from Dickerson Co., Monroe, N. C., imprv. 5.384 mi. York Co. **$79,873;** 8.17 mi. Lancaster Co. **$89,110;** 8.229 mi. Lancaster Co. **$87,712;** 5.94 mi. Allendale Co. **$68,353;** 6.626 mi. Chester Co. **$108,763***from Sloan Constr. Co., Inc., Greenville, 7.046 mi. Oconee Co. **$80,339;** 4.875 mi. Cherokee Co. **$53,117***from W. F. Bowe & Co., Augusta, Ga., 9.636 mi. Aiken Co. **$87,986***from Hubbard Constr. Co., Marion, 5.869 mi. Marlboro Co. **$91,358***from American Constr. Co., Royster, 3.21 mi. Richland Co. **$66,735***from Cherokee, Inc., Columbia, 10.221 mi. Georgetown and Horry Counties, **$251,730.** CD 11/7—ENR 11/14.

South Carolina—State Hy. Dpt., Columbia, rejected bids Nov. 19, imprv. 5.94 mi. Allendale Co. L. B. **$68,353;** 10.221 mi. Georgetown and Horry Counties L. B. **$251,730;** 5.869 mi. Marlboro Co., L. B. **$91,358;** 3.210 mi. Richland Co. L. B. **$66,735.** CD 11/27—ENR 12/5, under LB.

Tex., Dimmitt—Castro Co., c/o Judge, Courthouse Bldg., imprv. 20.79 mi. farm-to-market road and 4 mi. spur road, from Ernest Lloyd, P.O. Box 1120, Fort Worth. **$176,861.** CD 10/22—ENR 10/24.

Washington—State Hy. Dpt., Olympia, cancelled bids to have opened on Dec. 10, imprv. 4.38 mi. Cowlitz Co., 11.78 mi. Benton Co. CD 11/27.

Va., Lynchburg—City, municipal public works projects, incl. paving, sewers and water lines, from J. R. Ford, Inc., Lynchburg. **$275,210.** CD 2/7/45—ENR 2/22/45.

Washington—State Hy. Dpt., Olympia, Nov. 26, imprv. 4.4 mi. Lincoln Co., from Nyberg Constr. Co., Yardley, **$112,801.** Rejected bids Nov. 26, imprv. 1.3 mi. Wahkiakum Co. L.B. **$39,879.** CD 11/13—ENR 11/21.

CONTRACTS AWARDED

D. C., Wash.—Distr. Comrs., District Bldg., Wash., imprv. roadway of S. Capitol St. from M St. and Potomac Ave., to Helsing Bros., Woodward Bldg. **$115,613. Bids 10/28.**

Ga., Macon—City, c/o Watson Walker, engr., Macon, paving 40 streets, to Cornell-Young Co., P. O. Box 96. Est. **$500,000.** CD 6/13—ENR 6/27.

★**Maine**—Maine Turnpike Auth., Kennebunk, asphaltic concrete pavement on Maine Turnpike, 26 mi. Sect. 1, Southern Half, and 26 mi. Sect. 1, Northern Half, Kittery to Portland, to B. Perini & Sons, Inc., 73 Montwait Ave., Framingham, Mass. **$2,901,539** and **$2,-684,045** respectively. Bids 11/26, awarded 11/27. CD 11/7—ENR 11/14.

New York — Bureau Contrs. & Accounts, Albany, imprv. 3.37 mi. Onondaga Co., to D. W. Winkleman Co., Inc., Heffernon Bldg., Syracuse. **$828,786.** Bids 10/30. CD 11/1—ENR 11/7, under LB.

Ohio—State Hy. Dpt., Columbus, imprv. 4.124 mi. Adams Co., to Fuller Davies Co., Union Trust Bldg., Cincinnati, **$616,456,** est. $602,600***3.397 mi. Lucas Co., to S. E. Johnson Co., 218 Terminal Bldg., Toledo, **$241,312,** est. $248,000***0.672 mi. Lucas and Wood Counties, to Launder & Son, Inc., Glendale Ave. and Terminal R. R., Toledo, **$85,148*****0.227 mi. Coshocton Co., to Kent Bros. Co., 22 E. Gay St., Columbus, **$54,960,** est. $56,500***0.265 mi. Fulton Co., to Harper Coal & Supply Co., Napolean, **$54,150,** est. $54,270***0.606 mi. Licking Co., to W. J. Seidensticker Co., 209 S. High St., Columbus, **$71,822,** est. $70,230. Grand total $1,123,848. Bids 11/19. CD 11/8—ENR 11/14.

†**Oregon**—P. Rds. Admin., Cascade Bldg., Portland, clearing, grubbing, grading Clackamas Rd. in Mt. Hood Natl. Forest, Clackamas Co., to Smith Bros., 29 Algona Dr., Vancouver, Wash. **$127,957.** Bids 11/21.

★**Pennsylvania**—State Hy. Dpt., Harrisburg, imprv. 37,360 ft. Bedford Co., to Central Penna. Quarry, Stripping, & Constr. Co., Hazelton. **$1,034,764.** Bids 11/8, awarded 11/26. CD 11/12—ENR 11/14, under LB.

Tex., Beeville—Bee Co., John C. Beasley, judge, imprv. 46.116 mi. roads, to Fred Hall & Son, P. O. Box 1188, Waco. **$381,025.** Bids 11/19, awarded 11/20. CD 11/6—ENR 11/14.

Wash., Wenatchee—Chelan Co., Courthouse, grading, draining, ballasting and constr. approach to Icicle River bridge, grading, surfacing and guard rails on Navarre Coulee and Lake Shore Rd.; imprv. Wapato Way, Criswell Ave. to Amena St., own forces. **$52,636.** D. B. West, co. engr. CD 2/24/44—ENR 3/9/44.

Manitoba—Dpt. P. Wks., Winnipeg, graveling, 19 mi., Stonewall-Teulon Rd., Rockwood municipality, to Universal Constr. Co. Ltd., 303 Time Bldg., Winnipeg. **$42,595.**

Que., Baie Des Capucins—Municipality, road construction, to L. Keable, Les Mechins. Est. **$40,000.**

EARTHWORK, WATERWAYS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 11

†**Georgia and South Carolina**—U. S. Eng., P. O. Box 915, Augusta, Ga., diversion channel and west embankment, incl. portion earthen dam, Clarks Hill Dam. C. T. Main, 201 Devonshire Rd., Boston, Mass., ch. engr. CD 11/24/43—ENR 12/2/43.

Bids Asked December 16

†**La., New Orleans**—U. S. Eng., foot of Prytania St., Zone 9, rein.-con. bar culvert, excav., backfill and levee embankment, manually-operated drainage and riprap paving, Brushy Bayou Drainage Structure Avovelles Parish; rein.-con. floodwall with steel, timber bearing piles and steel sheet pile cut off wall, concrete pipe and rein.-con. intercepter storm sewer, concrete street paving and appurtenances, Morgan City Floodwall, Brashear Ave. to Southern Pacific R. R., St. Mary Parish.

Bids Asked December 18

†**Colorado**—Bureau Reclamation, Denver, 30 in. ring-follower gate 30 and 14 in. hollow-jet valves for Granby Dam and 14 in. hollow jet valve for Soldiers Canyon Dam, Colorado-Big Thompson Proj., Spec. 1516. Extended date. CD 11/4—ENR 11/7.

Tex., Port Arthur—Executive Secy., Adams Bldg., drainage imprvs., incl. 8 pumping units, etc. for Jefferson County Drainage Dist. 7, Smith & Norris, Harris Bldg., engrs. CD 11/11—ENR 11/14.

Bids Asked December 19

†**Arizonia-California**—Bureau Reclamation, Denver, Colo., furnishing del. f.o.b. cars shipping point or f.o.b. cars Earp, Calif., structural steel, incl. trusses, columns, beams, jack supports, bracing, armor angles for concrete, filed rivets, bolts, bearing plates, and anchor dock, Parker Dam, Parker Dam Power Proj., Spec. 1577. W. R. Young, ch. engr.

La., Marksville—Parish Police Jury, Marksville, drainage canals and structures, incl. $20,000 cu. yd. excav.

Bids Asked December 26

★†**Georgia and South Carolina**—U. S. Eng., P. O. Box 915, Augusta, Ga., main section rein.-con. dam and appurtenances for Clark Hill dam. Total $45,000,000. C. T. Main, 201 Devonshire Rd., Boston, Mass., ch. engr. CD 11/24/43—ENR 12/2/43.

Bids Asked December 30

†**Arizona-Nevada** — Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Louise, Ariz., structural steel for cableway and gaging station; and steel doors and louvers for gaging station, Davis Dam Proj., Spec. 1572. W. R. Young, ch. engr.

†**Colorado**—Bureau Reclamation, Denver, furnishing, del. f.o.b. cars shipping point or f.o.b. cars Enders, Neb., and Wilda, Colo., 1 high-pressure gate assembly, for installation in outlet works of Enders Dam, Frenchman Cambridge Unit, Neb., Missouri Basin Proj., also three high-pressure gate assemblies for installation in penstock gate structure, Estes Power Plant, Colorado-Big Thompson Proj., Spec. 1555. W. R. Young, ch. engr.

Bids Asked January 3

†**California**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Coram, aluminum or steel stairs, aluminum railings and curbs for Shasta Dam and Power Plant, Central Valley Proj., Spec. 1562. W. R. Young, ch. engr.

†**Washington**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Odair, hollow-metal doors, etc. for complete installation of doors in elevator towers on Grand Coulee Dam and in left power house, and steel partition with doors in control bay elevator lobby, floor elevation 951.00, 4-line wall of left powerhouse of Grand Coulee Power Plant, Columbia Basin Proj., Spec. 1561.

†**Washington**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Odair, structural steel roof framing, incl. anchor bolts, and other embedded material for machine-shop bldg. at Grand Coulee Dam, Columbia Basin Proj., Spec. 1567; also steel roof deck for above bldg., Spec. 1566.

†**California**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Coram, structural steel cofferdam for maintenance of spillway apron at Shasta Ram, Central Valley Proj., Spec. 1571. W. R. Young, ch. engr.

†**Colorado** — Bureau Reclamation, Denver, furnishing, del. f.o.b. cars shipping point or f.o.b. cars Granby, 4 motor-driven, deep-well, turbine-type pump, units for Granby Pump. Plant, Colorado-Big Thompson Proj., Spec. 1568. W. R. Young, ch. engr.

†**Washington**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Odair, one meter and relay cubicle, consisting of front vertical panel, top cover plate, left end door enclosure, channel base, complete with unmounted metering and relaying equip. for 11.95 kv. local power sys. at Grand Coulee switchyard, Columbia Basin Proj., Spec. 1569.

LOW BIDDERS

Ark., Osceola — Sub-District 1, Osceola Drainage Dist. 12, Nov. 19, cleaning approx. 25 mi. ditches, 225,000 cu. yd. excav. from Mears Constr. Co., Osceola. **$27,657.** CD 10/30—ENR 11/7.

N. J., Point Pleasant — Dpt. Conservation, Div. Navigation, Trenton, Nov. 12, bulkhead Proj. 240, Bayhead Manasquan Canal, from Jesse A. Howland & Sons, Inc., Church St., Sea Bright. **$47,419.** J. Rankin, c/o owner, engr. CD 11/16—ENR 11/21.

CONTRACTS AWARDED

†**California**—U. S. Eng., Wright Bldg., Sacramento, levee setbacks and enlargement at 3 sites along East Levee, Sacramento River between Mile 92.6 and Mile 111.5, Spec. 1252, to H. Earl Parker, 12 and F. Sts., Marysville. **$157,665.** Bids 9/18. CD 9/5.

Ind., Rochester—Dale Zimmerman, drainage comr., Court House, Mud Creek Drainage project, to McMahan Constr. Co., Rochester, **$209,000.** Est. $227,850. Bids 11/19, awarded 11/21. CD 10/21—ENR 10/24.

Mo., Webster Groves — City, C. H. Appel, mayor, City Hall, Webster Groves, St. Louis, Zone 19, grading, draining War Memorial Proj., to Samuel Kraus Co., 649 Edmund Ave., St. Louis, Zone 10. **$54,200.** Bids 11/25. CD 11/20.

†**Washington**—Bureau Reclamation, Customhouse, Denver, Colo., 70-ton gantry crane for Grand Coulee Dam Pump. Plant, Columbia Basin Proj., to Star Iron & Steel Co., 435 E. 11 St. Tacoma. **$127,883.** CD 9/5—ENR 9/12, under LB.

AIRPORTS & AIRBASES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

LOW BIDDERS

†**Va., Gravelly Point**—AIRPORT BLDG.—Federal Works Agency, 19 and F Sts. N.W., Wash. 25, D. C., Nov. 21, altering heating plant at Washington Natl. Airport, from Robert E. Anderson Co., 309 Maryland Ave. N.E., Wash. 25, D. C. **$72,930.**

CONTRACTS AWARDED

Calif., San Mateo—AIRPORT—Bay Meadows Aviation Co., Bell St. and Pacific Blvd., airport, incl. 2,400 ft. runway 100 ft. wide. Owner builds. **$50,000.** D. D. Stone & L. B. Mulloy, 381 Bush St., San Francisco, assoc. archts.

PUBLIC BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 10

N. Y., New York—New York Housing Auth., 122 E. 42 St., Zone 17, Lillian Wald Houses (Proj. NYS-2) East River Dr., Ave. D, E. Houston and 6 Sts. Plans deposit $75. Extended date. CD 11/6—ENR 11/14.

Bids Asked December 13

Ill., Melrose Park—School Dist. 83, Melrose Park, one 1 story and one 2 story rein.-con. schools. $450,000. T. J. Higgins & Assoc., 228 N. LaSalle St., Chicago, archts.

Bids Asked December 16

Tex., San Angelo—San Angelo Jr. College, educational bldg., $225,000; power house $60,000. Plans deposit $25 each. Mauldin & Lovett, Holcombs-Blanton Bldg., archts., Frank T. Drought, Frost Bank Bldg., San Antonio, consult. engr. G. Rhine, Alamo Natl. Bank Bldg., San Antonio, mech. engr.

Bids Asked December 17

Ala., Mt. Vernon—State Bldg., Comn., Montgomery, 300 bed hospital for insane women, at Searcy Hospital. Plan deposit $25. T. Cooper Van Antwerp, 216½ St. Francis St., Mobile, archt.

La., Monroe—State Dpt. Finance, 201 Capitol Annex Bldg., Baton Rouge, storage bldg. and nurses home at E. A. Conway Hospital. Reg. D-61-216, GCH. Plans deposit $25. H. L. Land, Ouachita Bank Bldg., Monroe, archt.

La., Pineville—State Dpt. Finance, 201 Capitol Annex Bldg., Baton Rouge, two epileptic dormitories, boiler house, covered walkways, renovations and alterations to dining hall, State Colony and Training School. $600,000. Plans deposit $50. Baron & Heinberg, 512 Guaranty Bank Bldg., Alexandria, archts.

Bids Asked About December 18

†N. Y., Buffalo—U. S. Eng., 960 Ellicott Square Bldg., Zone 3, excavation and constr. of foundation for hospital for Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C. CD 5/20—ENR 7/11.

Bids Asked December 19

Wash., Bellingham — Western Washington College of Educ., Bellingham, boiler plant. $225,000. Plans deposit $20. L. Bouillon & Assoc., 1411 4 Ave. Bldg., Seattle, Zone 1, engr. CD 5/24/45—ENR 6/14/45.

Bids Asked December 27

Idaho, Blackfoot—State Dpt. P. Wks., State House, Boise, disturbed patients bldg., $240,000; womens and married attendants bldg., $149,400; superintendents residences, $12,500; Medical Assistants Residences B, 1 and 2, $20,000; Male Attendants Bldg. 2, $72,000. Plans deposit $25.00. CD 7/3—ENR 8/8.

Idaho, Nampa—State Dpt. P. Wks., State House, Boise, nurses home, $217,255; hospital and receiving bldg., $72,670; garage, $16,466; dining room addn., $15,767, at Idaho State School & Colony. Plans deposit $25. CD 3/20—ENR 6/13.

Bids Asked January 3

†California—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Coram, one aluminum accordion door for service bay "d" line; one aluminum accordion door for control bay line; one aluminum sash window for "31" line in Shasta Power Plant, Central Valley Proj., Spec. 1563. W. R. Young, ch. engr.

Bids Asked January 6

†California—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Redding, 1 steel accordion door for "13" line, one steel sash window for "1" line, and one sliding door for "c" line, Keswick Power Plant, Central Valley Proj., Spec. 1564. W. R. Young, ch. engr.

Ind., Goshen—City, c/o clerk, City Hall, power plant structure. $100,000. Burns & McDonnell, 107 W. Linwood St., Kansas City, Mo., engrs. CD 1/17—ENR 3/7.

Bids Asked January 8

†Arizona-Nevada — Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Earp, Calif., steel pull box frames and covers, and steel pothead supports for 230 kv Switchyard, Parker Power Plant, Davis Dam Proj., Spec. 1573. W. R. Young, ch. engr.

Bids Asked January 17

†Wyoming—Bureau Reclamation, Denver, Colo., furnishing, del., f.o.b. cars shipping point or f.o.b. cars Casper, three 13,333 k.v.a., 6,900 volt, 3-phase, 60-cycle, 90 percent-power factor, 240 revolutions per min., vertical-shaft, alternating-current generators, etc. for Kortes Power Plant, Kortes Unit, Missouri Basin Proj., Spec. 1576.

Bids Asked Before July

★**†Md., Aberdeen**—U. S. Eng., War Dpt. Bldg., 21 St. and Virginia Ave., N. W., Wash. 25, D. C., laboratory for terminal facilities, Aberdeen Proving Ground. $1,000,000.

LOW BIDDERS

★**†Colo., Grand Junction**—U. S. Eng., 1 and Douglas Sts., N. W., Wash. 25, D. C., rejected bids Nov. 26, 150 bed hospital and utilities for Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C. L.B. $3,463,800. CD 10/21—ENR 10/24.

D. C., Wash.—Distr. Comrs., District Bldg., Wash., Nov. 26, Randall Jr. High School addns., 1 and H. Sts. S. E., from J. D. Hedin Const. Co., 820 Michigan Ave N. E. $420,800. CD 11/12—ENR 11/14.

Ind., Indianapolis—Bd. School Comrs., 150 N. Meridian St., Nov. 22, 2 story, bsmnt., 104x108 ft. L shaped school, from W. P. Jungclaus, Co., 825 Massachusetts Ave., $286,950; heating, ventilating and plumbing, from Hayes Bros., Inc., 236 W. Vermont St., $64,921. Ammerman, Davis & Stout, 804 Indiana Pythian Bldg., mech. engrs. CD 11/6—ENR 11/14.

Ia., Keokuk—City, indefinitely postponed, rein.-con., brick, stone city hall. $325,000 bonds defeated. CD 10/21—ENR 11/7.

Ill., Chicago—City, Dpt. P. Wks., City Hall, rejected bids Oct. 14, two story double fire station. L.B. $158,000. Will revise plans and readvertise. CD 10/9.

Ill., Elizabethtown—State Dpt. Hys., Frankfort, rejected bids Nov. 15, imprv. Bldg. No. 299-a, garage. L.B. $147,741. CD 11/20—ENR 11/28, under Bridges, LB.

Minn., Robbinsdale—Bd. Educ., W. S. Gibson, clk., project postponed, 20 classroom school. $400,000. CD 10/17—ENR 10/24.

★**†N. D., Minot**—U. S. Eng., Port Peck, Mont., rejected bids Nov. 22, 150 bed John Moses General Medical Veterans Hospital. L.B. $3,927,000. Est. $3,128,190. CD 11/1—ENR 11/7.

Tex., Houston—Harris Co. Navigation Dist., c/o Port Comn., Houston, J. Russell Walt, mgr., grain elevator imprvs., from Tellepsen Constr. Co., 3900 Clay St., addnl. work, day labor. Total cost $55,000.

B. C., Tranquille—Province of B. C., Parliament Bldgs., Victoria, 4 doctor's residences, nurses home, libarary bldg., farm boarding house addn., 2 farm cottages, from Bennett & White Constr. Co. Ltd., 510 W. Hastings St., Vancouver. $248,633. CD 11/18—ENR 11/21.

CONTRACTS AWARDED

Fla., Clearwater — City, c/o G. R. Seavy, mayor, Clearwater, 96 houses Stevenson St., north of Marshall St., separate contracts. $500,000. CD 10/16—ENR 11/14.

Ind., Peru—Bd. P. Wks., City Hall, imprv. municipal power plant, to Dravo Corp., Neville Island, Pittsburgh, Pa. $199,900. Est. $225,000. Bids 10/30, awarded 11/20. CD 10/21—ENR 10/24.

Ia., Orange City—City, municipal power plant, etc., to W. A. Kepp & Son Co., Rochester, Minn. $57,236. Bids 10/29. CD 10/9—ENR 10/17.

N. J., Vineland—Vineland Boro Comrs., Vineland, municipal electric plant alterations and imprvs., to Elliott Mfg. Co., Inc., Jeannette, Pa. $67,900. Awarded 11/20. H. A. Kuljian & Co., 1518 Walnut St., Phila., Pa., engr. CD 6/24/43—ENR 7/1/43.

Okla., Norman—Bd. Affairs, Oklahoma City, dining hall and kitchen at Oklahoma Central State Hospital, to Denehy Constr. Co., 514 W. Noble St., Oklahoma City. $216,668. Bids 11/7, awarded 11/21. CD 10/28—ENR 10/31.

S. D., Flandreau—City, power and light plant imprvs., to Buckeye Machine Co., Lima, O. $68,134. Bids 11/15. Buell & Winter, 503 Insurance Exchange Bldg., Sioux City, Ia., engrs.

B. C., Quesnel—British Columbia Power Comn., P.O. Box 606, Victoria, diesel generating station, day labor. Over $75,000. G. A. Vandervoot, c/o owner, engr. CD 4/16—ENR 7/11.

B. C., Smithers—British Columbia Power Comn., P.O. Box 606, Victoria, diesel generating station, day labor. Over $75,000. G. A. Vandervoot, c/o owner, engr. CD 4/16—ENR 7/11.

B. C., Vanderhoof—British Columbia Power Comn., P.O. Box 606, Victoria, diesel generating station, day labor. Over $75,000. G. A. Vandervoot, c/o owner, engr. CD 4/16—ENR 7/11.

COMMERCIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 13

Ind., Elkhart—Indiana Associated Telephone Corp., 660 Main St., Lafayette, 5 story, bsmnt., 87x106 ft. brick, stone, rein.-con. central telephone bldg. $500,000. W. Scholer, 1114 Main St., Lafayette, archt.

Bids Asked

O., Cleveland—Central National Bank, 308 Euclid Ave., 5 story, bsmnt., 45x130 ft., stone, brick, concrete bank, E. 6 St. and Euclid Ave. Conrad, Hays, Simpson & Ruth, Hanna Bldg., archts. CD 10/3—ENR 10/10.

Tex., Beaumont—Ross Combest & Assoc., Beaumont, frame, asbestos type residences, sewers, paving, and water lines. $345,000. CD 7/22—ENR 8/18.

LOW BIDDERS

Tex., Alice—Drs. J. H. Spann & R. G. Spann, Freer, project abandoned, 4 story, bsmnt., hospital. $250,000. CD 9/7/45—ENR 9/20/45.

Tex., Brownsville—Texas Management Engineers, c/o M. H. Kidder, Esperson Bldg., Houston, project abandoned community and recreation center. $350,000. CD 8/30/44—ENR 9/21/44.

CONTRACTS AWARDED

★**Ala., Mobile**—Southeastern Investment Co., Inc., A. A. Evans, pres., Merchants Natl. Bank Bldg., residential section on 48 acre tract. Owner builds. $3,000,000. CD 6/13—ENR 6/20.

★**Calif., Pomona**—Homes of Tomorrow, Inc., c/o R. K. Burke, 621 S. Flower St., Los Angeles, 185-unit, single family, 5 and 6 room dwellings, west of Reservoir St. Owner builds. $1,275,000.

Calif., San Mateo—C. H. Lanser & Norwood D. Tichenor, 2440 S. El Camino Real, San Mateo, 86 residences, to Oliver J. Johnson, 91 Wilburn Ave., Atherton. Est. $450,000.

★**Calif., Venice**—United Bldg. Co., 717 N. Highland Ave., Los Angeles, 158 six-room, 36x42 ft. frame, stucco dwellings. Owner builds. $1,208,700.

Calif., Visalia—Pacific Telephone & Telegraph Co., 140 New Montgomery St., San Francisco, steel frame, rein.-con. central office telephone bldg., to Trewhitt, Shields & Fisher, 1501 Pacific Southwest Bldg., Fresno. Est. $765,000. H. A. Thomsen, Jr., 315 Montgomery St., San Francisco, archt.

Conn., Middletown—Russell F. Halyburton, Ridge Rd., 55 single, frame houses, Miramichi Development, Meriden Rd. Sect., Marguerite and Prout Hill Rd. Owner builds. $450,000. CD 11/1—ENR 11/14.

Conn., Middletown—Israel Kaufman, Williams St., 1 family, single frame homes, Highland Ave. and Stevens Lane. Owner builds. $205,000. CD 11/29.

Conn., New Britain—M. Shapiro & Sons, 254 W. 54 St., New York, N. Y., forty 1 story homes, Lincoln Park. Owner builds. $225,000. E. Roth & Sons., 18 E. 48 St., N. Y., archts.

Conn., Southport—Frank J. Labbance, 731 Jennings Rd., Fairfield, thirty-five 1 and 2 family frame homes, Kings Hy., Center St. and Sasco Creek Sect. Owner builds. $350,000. Cameron E. Clark, Merwins Lane, Fairfield, archt. CD 11/22—ENR 12/5.

Del., Claymont—Stephen R. Jackson Co., 810 Orange St., Wilmington, residential development, separate contracts. $240,000.

Del., New Castle—John V. Ryan, Jr., New Castle, residential development, separate contracts. $240,000.

Del., Wilmington—Witsilt Built Homes, Inc., Jefferson St., residential development, separate contracts. $220,000.

Del., Woodcrest (Wilmington P. O.)—George H. McGovern, Inc., 205 W. 4 St., Wilmington, residential development, separate contracts. $240,000.

Fla., Ft. Pierce—Ft. Pierce Beach Development Co., c/o H. N. Schwartz, atty., Biscayne Bldg., Miami, residential development, incl. several apartment houses and hotel. Owner builds. Over $205,000.

Fla., Jacksonville—Ernest E. Anders Realty Co., Atlantic Blvd., 100 brick veneer houses in Southside Estates. Owner builds. $600,000. Bernard W. Close, 3954 Cordova Ave., archt. CD 6/13—ENR 6/20.

Fla., Miami—Mercy Hospital, Inc., Dupont Bldg., 300-bed hospital and nurses home, to J. Y. Gooch Co., Inc., Congress Bldg. Est. $950,000. Steward & Skinner, Ingraham Bldg., archts. CD 10/31—ENR 11/14.

Fla., Miami—Young Men's Hebrew Assn., 1567 S. W. 5 St., Jewish community center, to Keystone Constr. Co., 2236 N. W. Miami Court. Est. $225,000. CD 10/25—ENR 11/7.

★**Fla., St. Petersburg**—A. Roberts, Jr., c/o Cohu & Torrey, St. Petersburg, high class subdivision on 200 acre tract, in eastern and northern portions Snell Island, separate contracts. $2,000,000. CD 6/28—ENR 7/11.

Fla., Winter Haven—Polk Packing Assn., Winter Haven, 40 concrete block houses. Owner builds. $225,000.

Ga., Barnesville—Barnesville Housing Auth., c/o Mayor Kennedy, Barnesville, 34 houses, separate contracts. Over $205,000.

Ill., Chicago—Queen of All Saints, 6060 N. Kirkwood St., 2 story, Lannon stone, concrete, brick school, to Campbell-Lowrie-Lautermilch, 400 W. Madison St., Chicago***heating to McDonald & Trusck, 222 N. Canal St.***plumbing to C. J. McCall, 3443 N. Pulaski Rd. Est. $260,000. CD 12/20/45—ENR 1/10.

Ill., Evanston—Custer Mulford Bldg. Corp., c/o M. D. Kalischer, archt., 230 E. Ohio St., Chicago, 3 story, apartment to Welso Constr. Co., 2233 W. Grand Ave., Chicago. Est. $250,000.

Md., Baltimore—Roland Constr. Co., Springhill Cottage Aves., sixty, 2 story, bsmnt., 19x30 ft. brick, cinder block residences, separate contracts. $360,000. H. A. Miller & Assoc., 1102 N. Charles St., archt.

COMMERCIAL BLDGS. (Contracts Awarded, Cont'd.)

Md., Baltimore—The Crofton Co., Munsey Bldg., 100 two story, bsmnt., 22x30 ft. residences, separate contracts. **$800,000.**

Md., Linthicum Heights—Jerome M. Lichtenberg, Linthicum Heights, forty-four 1½ story, bsmnt., 28x30 ft. frame residences, separate contracts. **$300,000.**

Md., Ridgeleigh—Thomas J. Guidera, 365 Evasham Ave., Baltimore, thirty-four 2 story, bsmnt., 19x30 ft., brick residences, separate contracts. **$238,000.**

★**Mo., University City (St. Louis, Zone 5, P.O.)**—Doran, Shank, Lee & Yeager, Inc., 1408 Locust St., St. Louis, Zone 3, forty-one 4 unit, apartments, and two 2-unit apartments on 7 acre site, Olive and Midland Blvds., own forces. **$1,750,000.** Doran, Shank, Lee & Yeager, Inc., 1408 Locust St., St. Louis, Zone 3, archts.

★**N. J., Camden**—Rayson, Inc., 702 Market St., residential development, to W. & W. Constr. Co., 14 W. Pine St., Audubon, **$1,000,000.** Howard E. Hall, 840 Cooper St., archt.

N. J., Clementon—Regional Constr. Co., 37 Laurel Ave., residential development, separate contracts. Over **$205,000.** A. J. Sundstrom, Clementon, archt.

★**N. C., Charlotte**—Morebilt Homes, Inc., 2828 S. Boulevard, 13 eight family apartments and 113 homes, Melbourne Ct. and Keswick Ave., own forces. **$1,736,000.**

N. J., North Wildwood—Sabba Verdiglione, 942 S. 5 St., Camden, residential development, separate contracts. Over **$205,000.** W. D. Faint, 455 Curtis Ave., Delair, engr. and archt.

Pa., Bethlehem—Gottleib Schneider, 1434 Monocacy St., residential development, separate contracts. **$220,000.**

Pa., Blue Ridge Manor (Steelton P. O.)—Lester A. Hoffer, 366 Pine St., Steelton, residential development, separate contracts. **$250,000.**

Pa., Downingtown—George A. Kaiser, Lyndell, residential development, separate contracts. **$220,000.**

Pa., Drexel Hill—Anthony M. Macciocca, 22 N. 65 St., Phila., residential development, separate contracts. Over **$205,000.**

Pa., Easton—Sol. Bergstein, 21 N. 8 St., residential development, separate contracts. **$220,000.**

Pa., Elkins Park—Cleveland Yerger & Son, 1337 72 Ave., Phila., residential development, separate contracts. Over **$205,000.**

★**Pa., Harrisburg**—Harris Park Homes, Inc., 254 W. 45 St., New York, N. Y., residential development, separate contracts. **$1,420,000.**

★**Pa., Harrisburg**—Wilson Park Homes, Inc., 254 W. 45 St., New York, N. Y., residential development, separate contracts. **$1,600,000.**

Pa., Havertown—Richard P. Imschweiler, 706 Clarendon Rd., Drexel Hill, residential development, separate contracts. Over **$205,000.**

Pa., Lancaster—I. W. Weaver, 1251 Elm Ave., residential development, separate contracts. **$260,000.**

Pa., Millersville—C. A. Stigelman, 17 W. Cottage Ave., residential development, separate contracts. **$240,000.**

Pa., Mt. Penn—LeRoy H. Price, 230 Laurel Ave., residential development, separate contracts. **$205,000.**

Pa., Nether Providence Twp. (Chester P. O.)—Earl A. Goldsborough, 31 Worrall St., Chester, residential development, separate contracts. Over **$205,000.**

Pa., Phila.—Girard Trust Co., Broad and Chestnut Sts., to Girard Trust Bldg. and Morris Bldg., addns., alterations separate contracts. **$225,000** each. United Engineers & Constructors Inc., 1401 Arch St., engrs. CD **9/21.**

★**Pa., Phila.**—Temple Constr. Co., 3100 N. 2 St., residential development, West Oak Lane Sect., separate contracts. **$2,640,000.**

Pa., Phoenixville—Rossiter & Farkas, 321 Bridge St., residential development, separate contracts. **$700,000.** Francis Jobson, Gulph Rd., R. F. D. Wayne, archt.

Pa., Pine Grove (Schuylkill P. O.)—R. R. Sterner, Schuylkill, residential development, separate contracts. **$205,000.**

Pa., Pottstown—Chester M. Schol, R. D. 1, residential development, separate contracts. Over **$205,000.**

Pa., South Temple—C. B. Hassler & Son, South Temple, residential development, separate contracts. Over **$205,000.**

Pa., Strafford—Sunset Hills, Inc., 1524 Chestnut St., Phila., residential development, separate contracts. **$240,000.**

Pa., Upper Darby—John McClatchy, 69 and Market Sts., Phila., residential development, separate contracts. **$250,000.**

Pa., Upper Darby—Anthony M. Macciocca, 222 N. 65 St., Phila., residential development, separate contracts. Over **$205,000.**

Pa., Wilmington—Leopold Pullella, 1900 W. 8 St., residential development, separate contracts. **$250,000.**

Pa., York—Chares W. Mitzel, R. D. 3, York, residential development, separate contracts. **$220,000.**

R. I., Cranston—R. I. Home Builders, M. Melocarro, 274 Park Ave., frame houses also theater and stores, offices. Owner builds. **$500,000.** C. T. Lockwood, 276 Park Ave., archt.

S. C., Columbia—Southern Homes, Inc., c/o McCreery-Pressley Co., Arcade Bldg., 30 bungalows, own forces. **$225,000.**

S. C., Sumter—Sumter Homes, Inc., c/o F. B. Creech, pres., Calhoun St., 50 brick veneer homes, near Broad St., to M. B. Kahn Constr Co., Lady St., Columbia. Est. **$500,000.** James & Durant, Sumter, archts.

Tenn., Alcoa—The Aluminum Co. of America, Alcoa, 50 four-room homes, to Harrison Constr. Co., 1101 Western Ave., Pittsburgh, Pa. Est. **$225,000.**

Tenn., Chattanooga—Osborne Bldg. Corp., c/o Weldon F. Osborne, pres., Brainerd Hills, 80 brick homes, own forces. **$500,000.**

Tenn., Knoxville—Howard E. Rogers, 977 Lee Ave., residential section, McMillan subdivision. Owner builds. **$350,000.**

Tex., Austin—Home Builders Ltd., 3719 Windsor Road, residential constr., own forces. **$260,000.**

Tex., Houston—Dr. J. Robert Baier, 6721 Harrisburg Rd., 150 unit apartment, to Walter Rainey, 3708 Jardin St. Approx. **$750,000.** Roy W. Leibsle, 2428 Southmore St., engr.

Tex., San Antonio—Howard Bumbauth & Co., 102 Grandview St., residences, force account. **$210,000.** CD 10/17—ENR 10/24.

Tex., San Antonio—C. L. Browning, Jr., 812 Insurance Bldg., 37 dwellings, force account. **$275,000.** CD 11/22.

Va., Richmond — Clovelly Gardens Inc., 104 N. Sixth St., thirty-four 1½ story homes, Three Chapt, Hollins and Skipwith Rds., own forces. **$255,000.**

Va., Richmond—E. Powell Christian, 511 N. Blvd., residential development. Westview sub-divisions, own forces. Over **$205,000.**

Wash., Bellingham—Gaasland Constr. Co., Central Bldg., 3 and Columbia Sts., Seattle, Zone 4, 60 homes in Valette Park, day labor. **$300,000.**

Wash., Tacoma—Precision Houses, 311 S. Oakes St., 100 frame houses, day labor. **$684,300.** S. E. Nelson, 405 S. Sheridan St., archt.

★**Wash., Seattle**—Modern Home Builders, Inc., 3849 34 Ave. W., 600 houses between W. Alaska and Hanford Sts., Schmitz Park and James Madison Junior High School, day labor. **$4,500,000.** CD 10/4—ENR 10/10.

Wash., Seattle—Cascade Builders, Inc., Kirkland St., 25 homes, 40 Ave. N.E. and E. 65 St., day labor. **$230,000.** J. M. Warren, 6214 15 Ave. N.E., Zone 5, archt.

B. C., Port Alberni—Owner, c/o contractor, 100 dwellings, to Thor M. Peterson, Port Alberni. Est. **$450,000.** CD 4/26—ENR 5/2.

Ont., Ottawa—Grace Salvation Army Hospital Bd., 1156 Wellington St., brick veneer, cinder block, steel hospital exten., concrete fdn., to James More & Sons, 254½ Queen St. Approx. **$250,000.** Hazelgrove, Lithwick & Cameron, 53 Queen St., archts. CD 7/10—ENR 7/18.

Que., St. Laurent—Weston Realities, 1410 Stanley St., Montreal, 100 semi-detached houses, to General New Housing Corp., c/o owner. Est. **$950,000.**

INDUSTRIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 12

Mo., St. Louis—BOILER HOUSE, etc.—Masonic Home of Missouri, 5321 Delmar Blvd., Zone 12, 2 story, 40x84 ft., brick, steel, concrete boiler house, and 24x67 ft. coal storage, 5351 Delmar Blvd. W. B. Ittner, Inc., 408 Bd. Educ. Bldg., 911 Locust St., Zone 1, archt. and engr.

Bids Asked About December 14

Ga., Atlanta—WAREHOUSE, etc.—Pittsburgh Plate Glass Co., 172 Marietta St., 1 story, 137x192 ft. brick, warehouse and office. $300,000. Tucker & Howell, Rhodes-Haverty Bldg., archts.

Bids Asked

Ark., Little Rock—PUMPING STATION, etc. —Magnolia Pipe Line Co., Magnolia Bldg., Dallas, Tex., pump. station, electrically operated, $500,000; storage facilities, $350,000. CD 11/22, under Unclassified, Arkansas.

★**Mo., E. St. Louis and Alton**—PUMPING STATIONS—Magnolia Pipe Line Co., Magnolia Bldg., Dallas, Tex., pumping station, East St. Louis, $700,000; pumping station electrically operated, in Alton. $400,000. CD 11/25, under Unclassified, Missouri.

Pa., Phila—LAUNDRY—King Laundry Co., 11 and Emily Sts., laundry addns. and alterations. $73,000. Louis A. Manfredi, 2228 Mifflin St., archt.

Tex., Big Spring—SHOP, etc.—Texas & Pacific Ry. Co., R. J. Gamie, ch. engr., Texas & Pacific Bldg., Dallas, shop and service facilities for diesel engines, incl. storage, fueling and water facilities. $70,000.

★**Tex., Corsicana**—PUMPING STATION—Magnolia Pipe Line Co., Magnolia Bldg., Dallas, pump. station. $350,000. CD 11/18—ENR 11/28.

Tex., El Paso—SHOP, etc.—Texas & Pacific Ry. Co., R. J. Gammie, ch. engr., Texas & Pacific Bldg., Dallas, shop and service facilities for diesel engines, incl. storage, fueling and water facilities. **$70,000.**

★**Tex., Orange**—PLANT—E. I. du Pont de Nemours & Co., Inc., du Pont Bldg., Wilmington, Del., c/o H. L. Wolcott, mgr., Orange, basic salt mfg. plant unit (for nylons), $3,600,000; addnl. nylon plant, $5,300,000. CD 8/27—ENR 8/29.

★**Tex., Texas City**—PLANT—Carbide & Carbon Chemical Corp., Texas City, units for mfg. of vinylite resins. $2,750,000. CD 10/9—ENR 10/31.

W. Va., Wheeling—BAKERY—P. J. Gast & Son, Eoff St., 1 story, concrete block, rein.-con., steel bakery. $75,000. G. B. Cunningham, 208 Fidelity Bldg., archt.

Man., Winnipeg—GARAGE—G. G. Teeter, archt., 509 Lombard Bldg., 1 story, brick, concrete block garage, for Simpsons Transfer, 136 Notre Dame Ave. E. **$60,000.**

CONTRACTS AWARDED

★**Fla., Jacksonville**—PLANT—National Container Corp., Talleyrand Ave., bldg. addns., manufacturing facilities and equip., own forces. **$1,225,000.**

★**Ia., Waterloo**—PLANT—John Deere Tractor Co., Niles Rd., two 120 x 200 ft., one 80 x 300 ft., one 120 x 220 ft., and one 120 x 530 ft. brick, steel, concrete bldgs., to Jens Olesen & Sons Constr. Co., 321 W. 18 St. Est. **$3,000,000.** CD 8/21/45—ENR 8/23/45.

★**O., Dayton** — PLANT — Dayton Power & Light Co., Gas & Electric Bldg., power plant on Miami River, 11 mi. south of here and substation, dam over river, to Maxon Constr. Co., 131 N. Ludlow, Dayton, Zone 2. Est. **$12,000,000.** CD 10/30—ENR 11/7.

UNCLASSIFIED

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked December 18

La., Port Allen—GAS SUPPLY LINE, etc.—Town, Port Allen, natural gas supply and distr. sys. Plans deposit $25. Barnard & Burk, 314 Triad Bldg., Baton Rouge, archts. CD 2/13—ENR 3/7.

Bids Asked

★**Oklahoma**—PIPELINE—Sunray Oil Corp. 702 N. E. 28, Oklahoma City, 83 mi. 8 in. crude oil pipeline carrier between Allen and Drumright. $1,000,000. CD 11/25.

★**Texas and Illinois**—OIL PIPELINE—Magnolia Petroleum Co., Magnolia Bldg., Dallas, Tex., 650 mi. 20 in. crude oil pipeline carrier between **Corsicana, Tex.** and **Patoka,** Ill. $32,000,000. CD 11/14—ENR 11/28.

Texas—TRANSMISSION LINE—Fort Belknap Electric Co-operative Inc., Olney, 178 mi. rural electric lines, Young Co., $230,000. J. E. Ward, Wichita Falls, engr. CD 10/4—ENR 10/17.

SOON LETS CONTRACT

Mo., Clayton (St. Louis, 5, P. O.)—BROADCASTING STATION — KFUO Broadcasting Station, Rev. H. H. Hohenstein, dir., 801 DeMun Ave., Clayton, St. Louis, Zone 5, soon lets contract 3 story, attic, 32x60 ft. brick, bar joist, concrete slab broadcasting station addn. K. E. Wischmeyer, Bd. Educ. Bldg., 911 Locust St., St. Louis, Zone 1, archt.

Texas — TRANSMISSION LINES — Erath County Electric Co-operative Assn., Stephenville, soon lets contract 115 mi. rural electric power transmission lines, Erath Co. $75,000. J. E. Ward, 545 Allison-Duncan Bldg., Wichita Falls, engr. CD 10/25—ENR 10/31.

B. C., Vancouver — RACETRACK ADDNS. —Pacific National Exhibition, Hastings Park, B. B. Williams, secty., soon lets contract enlarging racetrack, moving 92,000 cu. yd. earth and increasing length of racing strip from 4 to 5½ to 6 furlongs. $125,000. Plans deposit $50. W. G. Swan, 814 Birks Bldg., engr.

LOW BIDDERS

Mass., New Bedford—PIERS—Commonwealth of Mass., 100 Nashua St., Boston, Nov. 26, pier development, Contr. 941, from Merritt-Chapman & Scott Corp., 292 Pequot Ave., New London, Conn. **$291,287.** Est. $244,344. CD 11/15—ENR 11/21.

Texas — TRANSMISSION LINES — Erath County Electric Co-operative, Assn., Stephenville, rejected bids Nov. 7, 115 mi. transmission lines, Erath Co. L. B. **$38,076.** CD 10/25—ENR 10/31.

CONTRACTS AWARDED

California — RAILWAY — Key System, 1106 Broadway, Oakland, removing and restoring 8 mi. railway, Richmond Shipyard Railway from Berkeley to Richmond, Alameda and Contra Costa Counties, to W. A. Smith Constr. Co., 514 Central Bldg., Los Angeles. **$68,200.**

Georgia — TRANSMISSION LINES — Carroll Electric Membership Co-operative, Inc., Carrollton, 221.7 mi. electric power lines in Carroll, Haralson, Heard, Spaulding and Polk Counties, to Roy Richards Const. Co., Carrollton. Est. **$324,000.** Bids 11/21. CD 11/14—ENR 11/21.

LAST MINUTE CONSTRUCTION REPORTS

WATER SUPPLY

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 23

Minn., St. Louis Park—Village, J. Justad, clk., drilling two 500 ft. deep, 24 in. wells. $30,000. J. C. Utton, St. Louis Park, village engr.

SOON LETS CONTRACT

Ore., Portland—Home Water Dist., 7840 S.W. Capitol Hy., soon lets contract 43,000 ft. 4- to 8-in. c.i. pipe with fittings for water sys. Over $22,500. Plans deposit $10. C. E. Carter, Spaulding Bldg., engr.

LOW BIDDERS

Calif., Oakland—East Bay Municipal Utility Dist., 512 16 St., Nov. 27, installing 2- to 8-in. watermains in Contra Costa Co., from Freethy-Fogelberg Co., 1436 Kearney St., El Cerrito. $98,712. CD 11/19.

Minn., Savage—Village, C. S. Stevens, recdr., Nov. 13, 9,964 lin. ft. 6 in. c.i. pipe, 6,000 lin. ft. ¾ in. galvanized service pipe line, etc., from Sandstrom & Hafner, P.O. Box, Duluth. $43,125. CD 10/31—ENR 10/31.

N. C., Wilmington—City, rejected bids Oct. 31, exten. watermains and sanitary sewers. L.B. $54,417. Will readvertise. CD 11/15—ENR 11/21.

Tex., Hillsboro—City, rejected bids Sept. 24, drilling, casing, developing water supply well. L.B. western location, $31,060. L.B. eastern location, $34,696. CD 10/8—ENR 10/10, under L.B.

SEWERS, WASTE DISPOSAL

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 11

N. Y., Staten Island—President Richmond Boro, Boro Hall, Zone 1, storm water drain, appurtenances in Clawson Ave., Tysen Lane, 10 St.

Bids Asked December 12

Md., Baltimore—City, c/o Bd. Awards, City Hall, storm drains, Storm Water Contrs. 221 and 219. Plans deposit $5 each. G. E. Finck, 312 Municipal Bldg., engr.

Bids Asked December 16

Ia., Dubuque—City, A. A. Rhombert, mgr., City Hall, Kaufman Ave. Sanitary Trunk Sewer, incl. 14,450 ft. 8- to 18-in. vitr. clay sewers, 72 "Y" branches, 30 brick manholes, 3 brick drop-manholes. $172,924. L. O. Temple, City Hall, city engr.

Bids Asked December 17

Mich., Detroit—Comr. Dpt. P. Wks., City Hall, Riverfront Sewers, P. W. 148 to 151 (inclusive). $200,000. Plans deposit $10. G. R. Thompson, Griswold St., city engr. CD 8/25/44—ENR 9/7/44.

Bids Asked December 18

N. Y., New York—Dpt. P. Wks., Municipal Bldg., Zone 7, Contr. 24, East Bronx Intercepting Sewer, Wards Island Sewage Treatment Works. Plans deposit $25.

Bids Asked December 19

Kan., Herington—City, at office E. Davis, city clk., Herington, sanitary sewer extens. and drainage imprvs. Plans deposit $5 each. Wilson & Co., 223 N. Santa Fe St., Salina, engrs.

Bids Asked December 20

Wis., Milwaukee—Sewerage Comn, P. O. Box 2043, 1,410 ft. 21 in. vitr. clay intercepting sewer in 6 in. concrete envelope. $50,000. Plans deposit $5. J. L. Ferebee, c/o owner, ch. engr.

Bids Asked January 24

Wis., Milwaukee — Milwaukee Sewerage Comn., Jones Island, P. O. Box 2043, furnishing 8 ft. diam. x 57 ft. steel dryer, f.o.b. Dryer House. $40,000. Plans deposit $5. J. L. Ferebee, c/o owner, ch. engr.

LOW BIDDERS

Minn., Savage—Village, C. L. Stevens, recdr. Nov. 13, sanitary sewer mains, manholes, force mains, and house sewer pipelines, from Sandstrom & Hefner. P. O .Box, Duluth. $41,250. CD 10/31—ENR 10/31.

S. C., Conway—Town, L. D. Macgrath, mayor, Nov 21, sewerage sys. imprvs., from Leo T. Barber, Moultrie, Ga. $105,640. CD 11/7—ENR 11/14.

Tex., Corsicana—City, project abandoned sanitary sewer sys. exten., imprvs. $300,000. CD 8/16—ENR 9/5.

Wis., Milwaukee—City, storm and sanitary sewers in S. Lenox St., to L. & L. Service Co., 906 E. Center St. $42,320. Bids 11/4, awarded 11/27. J. P. Schwada, city engr.

BRIDGES

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 10

Ohio—State Hy. Dpt., Columbus, 3 concrete slab bridges over Duck Creek and grading, paving approaches with bituminous surface treatment, 0.4 mi. S.H. 263, Mercer Co. reconstructing culvert 0.027 m. S.H. 541, Cuyahoga Co. $8,500.

Bids Asked December 13

Texas—D. C. Greer, engr. State Hy. Comn., Austin, bridge widening and approaches, 0.187 mi. Hy. 290 F. 33 (2) and F. 535 (6) Harris and Walker Counties; Trinity River Bridge, 0.433 mi. Contr. 1, Hy. 73 FI. 1052 (1) Control 508-2-1, Chambers Co.; bridge widening 0.148 mi. Hy. 75, Control 51-1-4, 51-2-15, Harris Co.

Bids Asked January 10

†**Idaho**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Cascade, structural steel, incl. beams, separators, field bolts and positive lock washers, and bearing plates for Cascade Dam Spillway Hy. Bridge, Payette Div., Boise Proj., Spec. 1586. W. R. Young, ch. engr.

LOW BIDDERS

Colorado—State Hy. Dpt., Denver, structures 0.345 mi. Weld Co., from W.F. and D.E. Van Winkle and Gage L. O'Dell, 2555 Harlan St., Denver. $53,876. CD 11/20—ENR 11/28.

N. C., High Point—City, R. S. Braden, mgr., Nov. 26, Perry Street Bridge over tracks of Southern Ry. Co., from Cavalier Constr. Co., Box 882, Portsmouth, Va. $88,271. CD 11/15—ENR 11/21.

CONTRACTS AWARDED

Kansas—State Hy. Dpt., Iola, bridge F.A. G.H. 79 A (5), Montgomery Co., to E. W. Geiger, Leavenworth. $79,763. Bids 11/22, awarded 11/26. CD 11/12—ENR 11/14.

STREETS AND ROADS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 10

Ohio—State Hy. Dpt., Columbus, asphaltic concrete paving, 2.325 mi. S. H. 460, Cuyahoga Co., $45,900; 0.169 mi. S. H. 919, Trumbull Co., $13,240; grading, drainage structures, bituminous on water bound macadam paving, 2.021 mi. S. H. 514, Portage Co.; 1.818 mi. S. H. 191 U. S. 36, Champaign and Union Counties; widening, asphaltic concrete resurfacing, 1.649 mi. S. H. 316 and 285, U. S. 24, Henry Co., $34,070; 1.491 mi. S. H. 306 and 946, Williams Co., $29,400; 0.839 mi. S. H. 209, 533 and U. S. 6, Williams Co., $21,340; grading, drainage structures, asphaltic concrete paving, 0.427 mi. S. H. 7, U. S. 52, Scioto Co., $34,750; grading, drainage structures, concrete widening and asphaltic concrete resurfacing, 0.473 mi. S. H. 3, U. S. 6, Erie Co., $20,560; grading, drainage structures, bituminous surface course paving, 0.35 mi. S. H. 661, Champaign Co., $11,700; draining, asphaltic concrete resurfacing, 1.678 mi. S. H. 7 and 177, U. S. 62, Brown Co., $36,200; grading, asphaltic concrete paving and bldg. concrete slab bridge over Dug Run, 0.123 mi. S. H. 127, U.S. 30-S, Allen Co.; bituminous material paving and bldg. concrete slab bridge over East Branch of South Lock of Sugar Creek, 0.246 mi. S. H. 341, Tuscarawas Co., $51,970; asphaltic concrete resurfacing and concrete slab bridge over Oberhouse Creek, 0.028 mi. S. H. 310, U. S. 6, Henry Co., $39,400; bituminous macadam surface course; grading, drainage structures and concrete slab bridge over Camp Creek, 0.753 mi. S. H. 326, Portage Co.; asphaltic concrete paving, grading, draining, and concrete slab bridge over Shawnee Creek, 0.331 mi. S. H. 248 U. S. 68, Greene Co., $78,910; grading, drainage structures, water-bound macadam paving and steel beam bridge over Mahoning River, 1.584 mi. S. H. 76, Portage Co.; grading, drainage structures, asphaltic concrete paving, steel beam bridge over Talawanda Creek and Harkers Run and reconstructing steel beam bridge over Harkers Run, 0.98 mi. S. H. 662, Butler Co.; grading, drainage structures, rein.-con. paving and concrete slab bridge 1.707 mi. S. H. 156, U. S. 50, Athens Co.

Bids Asked December 13

Texas—D. C. Greer, engr. State Hy. Comn., Austin, grading, structures, flexible base and base preservative 6.797 mi. Hy. FM 39 S. 889 (3) Control 643-1-4, Leon Co.; 9.444 mi. Hy. F. M. 651 S. 477 (1) Control 806-3-1, Crosby Co.; 6.707 mi. Hy. F. M. 39 S. 883 (3) Control 643-1-4, Leon Co.; grading, structures, flexible base and double asphalt surface treatment 11.721 mi. Hy. 77 F. 342 (2) Control 102-3-4, Nueces Co.; 15.283 mi. Hy. F. M. 41 S. 877 (3) and (4) Control 645-1 and 2-4 and 1, Lubbock Co.; grading, structures, flexible base, bituminous concrete paving and double asphalt surface treatment 9.46 mi. Hy. F. M. 364 S. 390 (1) Control 786-1-1, Jefferson Co.; grading, structures, roadbed treatment and base preservative 4.035 mi. Hy. F. M. 113 S. 451 (1) Control 717-1-1, Parker Co.; grading, structures, flexible base and single asphalt surface treatment 7.233 mi. Hy. F. M. 643 S. 490 (1) Control 965-1-1, Kent Co.; grading, structures 11.381 mi. Hy. 77-F. 1214 (2) Control 195-1-12, Cooke Co.; grading, drainage structures, roadbed treatment, soil asphalt base and surface asphalt surface treatment, 7.103 mi. Hy. F. M. 6 S. 1 (4), Control 619-1-5, Collin Co.; grading, structures, concrete paving 0.142 mi. Hy. 281 F722 (4), Hidalgo Co.

LOW BIDDERS

Ill., Rockford—City, City Hall, Nov. 25, concrete paving Clifton Ave. from Island to city limits, Sec. 75-CS, from Charles Ind. Rural Route 1, Point Ave. $67,886. CD 11/19.

Kentucky—State Dpt. Hys., Frankfort, Nov. 29, imprv. 9.321 mi. McCreary Co., from Nally & Ballard and R. R. Dawson and Nally & Gibson, Bardstown, $316,868; 4.257 mi. Rockcastle Co., from O. V. Arnett, Berea, $298,218. CD 11/13—ENR 11/14.

CONTRACTS AWARDED

Kansas—State Hy. Dpt., Iola, to Inland Constr. Co., 3867 Leavenworth St., Omaha, Neb., imprv. 0.201 mi., F 79-A (3), $45,205; 0.177 mi. FAGM-79-A (4), $42,791; 0.256 mi. FAGH 79-A (5), $45,117, all foregoing Montgomery Co.; to Koss Constr. Co., 2818 Fifth Ave., Des Moines, Ia., 1.058 mi. U-127 (4), Part 1, $117,016; 0.877 mi. U-127 (4), Part 2, $162,786, both Montgomery Co.; 0.494 mi. Allen Co., $47,868. Grand total $460,783. Bids 11/22, awarded 11/26. CD 11/12—ENR 11/14.

Minn., Fergus Falls—W. Lincoln, aud. Otter Tail Co., imprv. 5.5 mi. S. P. 56-524-03 (SAR 1), to J. Dieseth Co., P. O. Box 97, Fergus Falls, $45,884; 4.5 mi. S. P. 56-501-03 (SAR 1), to Strom Constr. Co., Moorhead, $47,161. Bids 11/12. CD 10/24—ENR 10/31.

New York—Bureau Contrs. & Accounts, Albany, imprv. 9.18 mi. Washington Co., to Collins Bros., Mechanicville, $507,782; widening 14.02 mi. Jefferson Co., to Warren Bros. Roads Co., 38 Memorial Dr., Cambridge, Mass., $575,995. CD 11/1—ENR 11/7, under LB.

†**Oregon**—Pub. Rds. Admin., Portland, clearing, grubbing, grading, Republic-Kettle Falls Hy., Colville Natl. Forest, Ferry Co., to Cox Bros., White Salmon, Wash. $57,622. Bids 11/27. W. H. Lynch, div. engr.

EARTHWORK, WATERWAYS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked January 8

†**Arizona-Nevada** — Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Kingman, Ariz., all materials, except concrete, for chain link fence to extend from Stations 0 plus 50 to 32 plus 80 for Davis Government Camp, Davis Dam Proj., Spec. 1579. W. R. Young, ch. engr.

Bids Asked January 9

†**California** — Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Friant, three 15,000 lb. radial-gate hoists with motors, limit switches, reduction gears, wire rope, and appurtenances, Little Dry Creek siphon; two 15,000 lb. radial-gate hoists with motors, limit switches, reduction gears, wire rope, and appurtenances for Little Dry Creek Wasteway, Friant-Kern Canal, Central Valley Proj., Spec. 1582. W. R. Young, ch. engr.

†**Washington**—Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Pasco, 25x47 ft. steel pumping plant bldg. at Pasco Bump. Plant, Columbia Basin Proj., Spec. 1581.

Bids Asked January 20

†**California** — Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Concord, 3 outdoor-type transformers complete with oil and high-voltage lightning arresters, for Ygnacio Canal Pump. Plant; 3 outdoor-type transformers complete

EARTHWORK, WATERWAYS (Bids Asked, Cont'd.)

with oil and high-voltage lightning arresters, for Clayton Canal Pumping Plant; 1 outdoor, weatherproof switchgear assembly for 2,300-volt, 3-phase, 60-cycle service, with one incoming line auxiliary section, and two motor-control sections for Ygnacio Canal Pump. Plant; 1 outdoor, weatherproof switchgear assembly for 2,300-volt, 3-phase, 60-cycle service, with one incoming line auxiliary section and three motor control sections for Clayton Canal Pump. Plant; 2 outdoor-type disconnecting switches with arcing horns, one each for Ygnacio Canal and Clayton Canal Pump. Plants; 6 outdoor, expulsion-type disconnecting fuses, etc. for Ygnacio Canal and Clayton Canal Pump. Plants; 2 float switches one each for Ygnacio Canal and Clayton Canal Pump. Plants, Central Valley Proj., Spec. 1575. W. R. Young, ch. engr.

CONTRACTS AWARDED

†**California and Oregon**—Bureau Reclamation, Denver, Colo., 3 centrifugal pumps and 3 AC motors for direct connection to above pumps for installation in Pumping Plant D, Modoc Unit, Tule Lake Div., Klamath Proj., California, Oregon, Spec. 1456, to General Electric Co., 650 17 St., Denver, Colo. **$30,534.** Bids 9/12, awarded 10/26. CD 8/2—ENR 8/8.

N. B., Caissies Cape—Dpt. P. Wks., Ottawa, Ont., breakwater repairs, to Diamond Constr. Co. Ltd., Devon St., Fredericton. **$123,320.** CD 11/15—ENR 11/21.

AIRPORTS & AIRBASES

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked January 2

Tex., Tyler—HANGAR—City, 100 x 100 ft. metal hangar with 20 ft. leanto. **$60,000.** Engineer, c/o Guy Rollins, City Hall, engr. CD 9/17—ENR 9/19.

CONTRACTS AWARDED

Calif., San Bruno—HANGAR—TWA, Inc., 101 W. 11 St., Kansas City, Mo., steel nose hangar for line maintenance at San Francisco Airport, to Empire Constr. Co., Ltd., 344 Harriet St., San Francisco. Est. **$100,000.**

PUBLIC BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 9

N. J., Trenton—Dept. Institution & Agencies, Trenton, hospital addns.

Bids Asked December 10

N. J., Trenton—Dept. Institution & Agencies, Trenton, hospital alterations.

Bids Asked December 12

D. C., Wash.—At office Architect of Capitol, Wash., reconstructing roofs of Senate and House wings and remodeling Senate and House Chambers of U. S. Capitol. Extended date. CD 11/12—ENR 11/14.

Bids Asked December 17

Ia., Lamoni—City, imprv. light and power plant, incl. diesel generating unit, exciter, foundations, silencer, switchboard, panel, transformer, voltage, regulator. Over $55,000. H. Hoskins, Trust Bldg., Lincoln, Neb., engr.

Bids Asked December 18

Wis., Watertown—Bd. Educ., 505-8 Ave., 1 and 2 story, steel, brick, Lincoln School, concrete fdn. $225,000. Plans deposit $50. Foeller, Schober, Berners, Safford & Jahn, 310 Pine St., Green Bay, archts. CD 11/17—ENR 11/28.

Bids Asked January 9

†**Washington**—Bureau Reclamation, Denver, Colo., disconnecting switch, lightning arresters, current transformers, and power cable for Unit L-9 and 11.95 k.v. Substation, Grand Coulee Power Plant, Columbia Basin Proj., Spec. 1538. Extended date. CD 11/19—ENR 11/21.

Bids Asked January 9

†**Wyoming** — Bureau Reclamation, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Cody, 3 liquid-filled, self-cooled, indoor type transformers, for Heart Mountain Power Plant, Shoshone Proj., Spec. 1583.

LOW BIDDERS

Idaho, Blackfoot—State Dpt. P. Wks., Boise, utility bldg. at State Hospital, from C. B. Lauch Co., Inc., P.O. Box 2559, Boise. **$402,-699.** L. E. Stalker, 215 Jennie Rogers Bldg., Idaho Falls, archt. CD 7/3—ENR 8/8.

★**Mich., Detroit**—Wayne University, State Bldg. & Constr. Div., State Administrative Bd., Lansing, Nov. 27, brick, steel, concrete, stone classroom, from H. B. Culbertson Co., 2842 West Grant Bldg. **$1,300,000.** CD 11/25.

Mich., Lansing—Michigan School for Blind, Lansing, Nov. 27, brick, steel, concrete service bldg., from Granger Bros., 2702 S. Cedar St. **$256,000.** CD 11/25.

CONTRACTS AWARDED

Ia., Sibley—City, R. D. Stewart, clk., power plant imprvs., incl. power piping, accessories, installing auxiliary equip., to Winger Constr. Co., Ottumwa. Est. **$120,000.** CD 10/29—ENR 10/31.

★**O., Dayton**—War Dpt., Pentagon Bldg., Arlington, Va., plant for atomic energy project, near here, to Maxon Constr. Co., 131 N. Ludlow St. Est. **$5,000,000.** Monsanto Chemical Co., 1700 S. 2 St., St. Louis, Zone 4, Mo., will operate.

COMMERCIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Conn., Derby—Griffin Hospital, G.H. Gamble, pres., Seymour Ave., 3 story, brick, steel concrete hospital. **$400,000.** L. A. Walsh, 111 W. Main St., Waterbury, archt. CD 8/17—ENR 9/7.

CONTRACTS AWARDED

Conn., Wethersfield — David Brunsell & Patsy Ambrose, 52 Farmingdale Rd., 40 single frame homes, Burge Rd., owner builds. **$240,000.** CD 4/18—ENR 4/25.

Md., Baltimore—Richwood Development Co., 5505 Carter Ave., fifty-eight 3 story, bsmnt., 16x45 ft., brick residences, separate contracts. **$464,000.**

N. Y., New York—St. Clares Hospital, 415 W. 51 St., Zone 19, hospital and convent, 408 W. 52 St., to William A. Berbusse, Jr., Inc., 101 Park Ave., Zone 17. Est. **$600,000.** Bids 11/7. P. C. Reilly, 111 Fifth Ave., archt. CD 10/23—ENR 10/31.

Ore., Portland—Pacific Tel. & Tel. Co., 730 S.W. Oak St., two 2 story, bsmnt., 74x89 ft. steel, rein. con. telephone exchange bldgs., 1 at N.E. 102 Clackamas St., and other at 102 Ave., to Robertson, Hay & Wallace, 1891 S.E. Grand Ave. Est. **$424,000.** CD 10/7—ENR 10/17.

Tex., Houston—Southwest Greyhound Lines, Inc., c/o A.F. Baldus, 713 Milam St., 1 story, mezzanine, bsmnt., 148x150 ft. and two 48x102 ft. wings, frame bus terminal, concrete pier and slab fdn., airconditioning, to Arch Munn, 5319 Junius St., Dallas. Approx. **$475,000.** Zoomwalk & Vinther, Merc. Bank Bldg., Dallas, engrs. CD 6/10—ENR 6/27.

Que., Montreal—A. Ruttenberg, 301 Jean Talon St., housing, to Main Constr. Co., Ltd., 301 Jean Talon St. Est. **$350,000.** M. W. Roth, 204 W. Notre Dame St., archt.

INDUSTRIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Pa., Hollidaysburg—FACTORY—The Wahl Co., c/o Hollidaysburg Chamber of Commerce, Hollidaysburg, 1 story, 100x200 ft., concrete block pajama and shirt factory. $60,000.

★**Tex., Amarillo**—PLANT, etc.—Texoma Natural Gas Co., 20 N. Wacker Dr., Chicago, Ill., dehydration plant addn. $225,000; addns. to 9 compressor units for total 11,250 hp. $900,000; gasoline plant addns., imprvs. $375,000. CD 9/26—ENR 10/17.

SOON LETS CONTRACT

Conn., Waterbury—GARAGE, etc.—Southern New England Ice Co., 216 Hamilton St., Hartford, soon lets contract two garage bldgs. and office, K. S. Heine, 238 Palm St., Hartford, archt. CD 11/20—ENR 11/28.

★**La., Monroe**—GAS PLANT—Mississippi River Fuel Corp., 407 N. 8 St., St. Louis, Mo. project held up indefinately, natural gas plant imprvs., $1,000,000. CD 9/25—ENR 10/3.

Mo., St. Louis—FACTORY—Johnston Tinfoil & Metal Co., 6106 S. Broadway, Zone 11, soon lets contract 1 story 109 x 122 ft. brick, steel, bar joist, continuous sash, steel, concrete factory addn., 6106 S. Broadway. P. M. O'Meara Assoc., 4908 Delmar Blvd., Zone 8, archts.

O., Toledo—PILOT PLANT—Owens-Illinois Glass Co., 1510 Westwood Ave., soon lets contract pilot plant. Over $55,000. W. Schmid, c/o owner, engr.

Pa., New Eagle (Matthers Mine)—COAL PLANT—Pittsburgh Coal Co., Oliver Bldg., Pittsburgh, soon lets contract 1 story, steel, brick coal preparation plant. $300,000.

Pa., Pittsburgh—FREIGHT HOUSE—Baltimore & Ohio R. R., H. H. Harsh, engr. maintenance and ways (Central Region) Maloney Bldg., Blvd. of Allies, soon lets contract 1 story, 44 x 100 ft., concrete block, steel refrigerator freight house addn., Scotland St. $62,000.

Que., Montreal—PLANT—Ross, Paterson, Townsend & Henghan, archts., Dominion Sq. Bldg., soon lets contract truck division plant, on Upper Lachine Rd., for International Harvester Co. of Canada Ltd., 5615 St. Lawrence Blvd. $300,000.

LOW BIDDERS

Tex., Beeville—PLANT—C. Eneu Johnson & Co., Beeville, project abandoned carbon black plant. **$200,000.** CD 5/23—ENR 6/13.

CONTRACTS AWARDED

Ala., Talladega — WAREHOUSE — Bemis Bros. Bag Mfg. Co., Talladega, cotton warehouse, to Fiske-Carter Constr. Co., P. O. Box 509, Greenville, S. C. **$120,000.** Greer Holmquist & Chambers, Chamber of Commerce Bldg., Birmingham, archts.

Calif., Los Angeles—WAREHOUSE—Ziegler Steel Service Co., 1560 N. Ditmar Ave., 1 story, 60x300 ft., structural steel corrugated iron warehouse, 6000 Anaheim St.-Telegraph Rd., East Los Angeles. Owner builds. **$85,000.**

Calif., North Hollywood—FILM EDITING—Republic Productions, Inc., 4024 Radford Ave., 2 and part 3 story, bsmnt., 51x101 ft., rein.-con. film editing bldg., to Myers Bros., 3407 San Fernado Rd., Los Angeles. Approx. **$150,000.** T. M. Abell, 469 Upper Mesa Rd., Santa Monica, archt. and Hillman & Nowell, 816 W. 5 St., Los Angeles, engrs.

Calif., Richmond — FACTORY — Stauffer Chemical Co., 6226 California St., San Francisco, 61x125 ft., rein.-con. factory addn., to C. Norman Peterson, 70 Rock Lane, Berkeley. Est. over **$55,000.** K. Theill, 580 Market St., San Francisco, engr.

Calif., Redwood City—LABORATORY, etc.—Chemical Process Co., 58 Sutter St., San Francisco, rein.-con. test laboratory and factory, to Wagner & Martinez, 181 S. Park St., San Francisco. Est. **$250,000.** Morgan Stedmen, 180 University Ave., Palo Alto, archt.

Calif., San Francisco—CONTROL, etc.—Pacific Gas & Electric Co., 245 Market St., control and transformer bldgs., transformer repair and warehouse and tower foundations, to MacDonald, Young & Nelson, 127 Montgomery St., San Francisco. Est. over **$55,000.** CD 8/26—ENR 8/29.

Calif., Stockton—PLANT—Pacific Can Co., 290 Division St., San Francisco, 1 story, 130x300 ft., frame, concrete cannery plant, to Cahill Bros., 206 Sansome St., San Francisco. Est. **$125,000.** Ellison & King, 1045 Sansome St., San Francisco, engrs. CD 11/20.

Conn., South Windsor—SALES and SERVICE—G. Fox & Co., Inc., Hartford, 1 story, 155x160ft., brick, steel, cinder block farm equip. and materials sales and service bldg., Strong Rd. on Route 5, to Southern New England Contg. Co., 242-342 Trumull St., Hartford. Est. **$125,000.** J. R. Weber, 415 Lexington Ave., New York, N. Y., archt.

Calif., South San Francisco—FACTORY—W. P. Fuller & Co., 301 Mission St., San Francisco, 3 story, 102x281 ft. concrete, glass brick factory, to Parker, Steffens & Pearce, 135 S. Park St., San Francisco. Est. over **$55,000.** L. H. Nishkian, 1045 Sansome St., San Francisco, engr. CD 4/3—ENR 4/11.

Calif., Wilmington—MILL—Copra Oil & Meal Co., 914 San Clemente St., 50x240 ft. steel, granite mill, to Al. Reingardt, 3825 E. 7 St., Long Beach. Approx. **$70,000.**

Conn., Bridgeport — FACTORY — General Electric Co., Boston Ave., 1 story, 35 x 200 ft. wire drawing plant, Bond St. and Boston Ave. to Gellatly Constr. Co., 25 Housatonic Ave. Est. **$55,000.**

Conn., East Hartford—AUTO SHOWROOM, etc.—Weston M. Jenks, 751 Connecticut Blvd., 1 story, bsmnt., brick, steel, rein.-con. auto showroom, service, Connecticut Blvd., to Bartlett Brainerd Co., 103 Woodbine St., Hartford. Est. **$55,000.** W. Crabtree, Jr., 195 Fern St., Hartford, archt.

Conn., Hartford—WAREHOUSE—Railroad Storage & Warehouse Co., 169 Park Ave., 1 story, 90 x 150 ft., steel, cinder block warehouse, to S. C. Poriss Co., 54 Church St. Est. **$55,000.** Kane & Fairchild, 40 Pearl St., archts.

Ind., Noblesville—FACTORY—Firestone Industrial Products, Div. Firestone Tire & Rubber Co., 12200 Firestone Parkway, Akron, O., 1 story, 80 x 187 ft. brick, tile, rein.-con. structural steel, steel sash factory and finished goods warehouse, also 50 x 187 ft. loading dock, to Carl M. Geupel Constr. Co., 1109 Hume Mausur Bldg., Indianapolis. Est. over **$150,000.** Awarded 11/20. F. Narszl, c/o owner, engr. CD 1/17—ENR 1/31.

Ill., Argo—CORN TIPPLE UNLOADER—Corn Products Refinery Co., 333 N. Michigan St., Chicago, rein.-con. corn tipple unloader, to Bedford Constr. Co., 333 N. Michigan Ave., Chicago. Est. **$115,900.**

Ill., Argo—PLANT—Corn Products Refinery Co., 333 N. Michigan St., Chicago, 3 story, brick, steel, concrete solvent extraction plant, to Bedford Const. Co., 333 N. Michigan Ave., Chicago. Est. **$230,000.** CD 1/7—ENR 1/17.

Ill., Belvidere—PLANT—Belvidere Distilling Co., 134 N. La Salle St., Chicago, feed recovery plant addn. and remodeling, 1 story boiler house addn., to E. H. Marhoefer, Jr. Constr. Co., 222 N. Bank Dr., Chicago***heating and piping, to Robert Gordon Co., 19 N. Jefferson St., Chicago***electrical work to Pierce Electric Co., 367 W. Adams St., Chicago. Est. **$250,000.** CD 6/6/45—ENR 6/14/45.

INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

Ill., Chicago—PLANT—Illinois Central R. R., C. H. Mottier, ch. engr., 135 E. 11 Pl., 1¼ story, brick, concrete, steel perishable food plant, to Wm. C. Kuhlman, 4806 W. Chicago Ave. Est. $89,000.

Ill., Chicago—FREIGHT HOUSE—Alton R. R. Co., M. D. Canotheac, ch. engr., 340 W. Harrison St., Zone 7, 1 story, 37x398 ft. brick freight house, to Russell Peacock, 3306 W. North Ave.; plumbing, to S. J. Reynolds, Inc., 235 W. Ogden St. Est. $116,000. H. Bober, 340 W. Harrison St., archt.

Ill., Ottawa—PLANT, etc.—Bakelite Corp., c/o Union Carbide & Carbon Corp., 30 E. 42 St., New York, N. Y., 277 x 529 ft. manufacturing plant and 68 x 130 ft. boiler house, to F. H. McGraw & Co., 780 Windsor St., Hartford, Conn., Giffels & Vallet, Inc., and L. Rossetti, 1000 Marquette Bldg., Detroit, Mich., assoc. archts. and engrs.

Ind., Columbus—FACTORY—Reeves Pulley Co., 1225 7 St., 1 story, 83x231 ft., concrete, steel factory addn., to Luke Taylor, E. Riverside Dr. Est. $60,000. Awarded 11/22.

Ia., Muscatine—FACTORY—Fruitland Mfg. Co., Muscatine, 1 story, 60x200 ft., bsmnt., concrete, steel, brick factory, day labor.

Kan., Kansas City—FACTORY—Colgate-Palmolive-Peet Co., 150 Hudson St., Jersey City, N. J., geral contract factory, to Turner Constr. Co., 420 Lexington Ave., New York, N. Y. Est. $60,000. Albert Kahn Associated Architects & Engineers, Inc., 345 New Center Bldg., Detroit, Mich., archts.

Ky., Russell—SHOPS, etc.—Chesapeake & Ohio Ry., L. T. Nuckols, ch. engr., 823 E. Main St., Richmond 10, Va., car and blacksmiths shops, storehouses, to Hughes Foulkrod & Co., 1505 Race St., Phila., Pa. $300,000. Bids 10/15, awarded 11/6. CD 10/23—ENR 10/31.

Md., Baltimore—PRINTING SHOP, etc.—Gamse Lithographing Co., 419 E. Lombard St., 1 story, brick, tile printing shop and office, to Cummins Hart Constr. Co., 2023 N. Charles St. Est. $85,000.

Md., Baltimore — FACTORY — Charles T. Brandt, Inc., Bush and Ridgely Sts., 1 story, concrete sheet metal factory addn., to George S. Awalt & Co., Morris Bldg. Est. $120,000.

Minn., Cloquet—PLANT—Wood Conversion Co., E. W. Davis, exec. vice-pres., First. Natl. Bank Bldg., St. Paul, general contract boiler plant addn. to factory, and general rebuilding wall board mill to Fegles Constr. Co., 711 Wesley Temple Bldg., Minneapolis. Est. $240,000. Pfeifer & Shultz, 702 Wesley Temple Bldg., Minneapolis, archts. CD 5/1—Eng 5/9.

Minn., Minneapolis—LAUNDRY—American Linen Co., 901-15 LaSalle Ave., general contract 3 story, 96 x 100 ft., rein.-con. tile laundry addns., to J. Leck Co., 211 S. 11 St. $135,000. C. Gage, 47 S. 9 St., Minneapolis, archt.

Mo., Kansas City — BREWERY — George Muehlebach Brewing Co., 316 Oak St., general contract brewery, to Rau Constr. Co., 2469 Harrison. Est. $460,000. CD 11/14—ENR 11/21.

Mo., St. Louis—FACTORY—General Cable Corp., 4121 N. Kings Hy. Blvd., Zone 15, 1 story, 25x62 ft., brick, rein.-con. factory, 5100 Brown Ave., to A. H. Haeseler Bldg. and Constr. Co., 2346 Palm St., Zone 7. Est. $72,460. C. A. Jackson, 55 W. 42 St., New York, N. Y., archt.

Mo., St. Louis—AUTO SALES and SERVICE—Pallen Motors, Inc., 4525 Delmar Blvd., Zone 8, 1 story, bsmnt., 100x157 ft., brick, concrete, steel and plate glass automobile service and sales bldg., 5900 block of Delmar Blvd., St. Louis, to John B. Gutman, 220 N. 4 St., Zone 2. Est. approx. $80,000. Marcel Boulicault, 1204 Ambassador Bldg., 411 N. 7 St., Zone 1, archt.

Mo., St. Louis—WAREHOUSE—Robinson Erection Co., 1839 Knox Ave., Zone 10, 1 story, 55x200 ft. warehouse and 20x100 ft. shop, 5540 West Park Ave., own forces.

Mo., St. Louis—FACTORY—M. J. Sullivan, 2308 S. 7 St., Zone 4, 1 story, 60x125 ft., factory, 1509 Sublette Ave., to Smith-Cooke Constr. Co., 4829 Easton Ave., Zone 13. Est. $55,000. J. A. Grunik, 6635 Delmar Blvd., University City, St. Louis, Zone 5, archt.

N. C., Asheville—PLANT—The Mountain Burley Tobacco Co., Meadow Rd., tobacco redrying plant, to Merchant Constr. Co., 290 Baltimore Ave. Est. $300,000. Anthony Lord, 17½ Church St., archt.

N. J., Trenton—PLANT—Fairfacts Co., Inc., Fairfacts Ave., plant addn., to Mahoney-Troast Constr. Co., 657 Main St., Passaic. Over $55,000. Awarded 11/18. CD 10/30—ENR 11/7, under CA.

O., Cleveland—GARAGE—Ohio Bell Telephone Co., 750 Huron Rd., c/o A. W. Bailey, 1 story, 65x280 ft., brick, steel garage and 1 story, 40x100 ft. cable dock, W. 150 St. and Chatfield Ave., to The Dunbar Co., 8201 Cedar Ave. Est. over $55,000. Awarded 11/20. CD 9/23—ENR 9/26.

Ore., Medford—PLANT—Reter Fruit Co., 327 S. Fir St., 3 story, bsmnt., rein.-con. cold storage plant, to D. M. Drake Co., Lewis Bldg., Portland. $74,000. R. J. Keeney, Central Ave., archt.

Ore., Portland—WAREHOUSE, etc.—General Grocery Co., 45 S. E. Ash St., warehouse and dock repairs, to G. H. Buckler Co., Lewis Bldg. $70,000. Wolff & Phillips, Pearson & 4th Ave. Bldg., archts.

Pa., Chester — MACHINE SHOP — Phila. Electric Co., 900 Sansom St., Phila., machine shop addn., alterations, to J. A. Robbins Co. Inc., 10 S. 18 St., Phila. $88,250. Awarded 11/6. R. J. Milligan Co., ch. engr.

Pa., Cressona—PLANT—Aluminum Co. of America, Cressona, aluminum plant alterations, separate contracts. $220,000. Day & Zimmerman, Inc., Packard Bldg., Phila., engrs.

Pa., Downingtown — POWER HOUSE — Downingtown Paper Co., 301 Brandywine Ave., 1 story, brick, concrete, steel power house. Owner builds. Over $55,000. J. A. Kagerhuber, ch. engr.

Pa., Du Bois—PLANT—Coca Cola Bottling Co., Du Bois general contract 50x60 ft. brick, steel plant, to Bert C. Skinner, 209 E. Washington St. Est. $60,000.

Pa., Duquesne — LABORATORY — Carnegie Illinois Steel Co., Carnegie Bldg., Pittsburgh, 1 story, brick, tile spectrographic laboratory, to Edward Crump, Jr., 4031 Bigelow Blvd., Pittsburgh. Est. $70,000.

Pa., Grove City—MANUFACTURING—W. Bashline & Co., Grove City, 2 story, 80x110 ft., brick, tile mfg. bldg., to Shago Constr. Co., Grove City. Est. $80,000. W. Holmes Crosby, Oil City, archt.

Pa., King of Prussia—FACTORY, etc.—Jones Machine & Foot Works, Inc., King of Prussia, factory and office bldg. repairs and addn., separate contracts. Over $55,000. Manuel Greenberg, 4211 Ludlow St., Phila., archt.

Pa., McKees Rocks—MANUFACTURING—Federal Enameling & Stamping Co., McKees Rocks, 5 story, bsmnt., concrete block, steel mfg. bldg., to P. S. Edwards, R.D. 1, Library. Est. $60,000.

Pa., Phila. — WAREHOUSE — William G. Davidson, 32 S. Front St., repairing warehouse, to Frank G. English & Sons, 1606 N. Carlisle St. $55,000. Awarded 11/14.

Pa., Phila.—SUB-STATION, etc.—Phila. Electric Co., 900 Sansom St., substation and retaining wall, to John B. Kelly, Inc., 770 S. Schuykill Ave. $55,000. Awarded 11/14. R. J. Milligan, co. ch. engr.

Pa., Pittsburgh — MANUFACTURING — Tracey Mfg. Co., Preble Ave., N.S., Pittsburgh, 1 story, 80x114 ft., concrete block, steel, concrete mfg. bldg., to P. S. Edwards, R.D. 1, Library. Est. $55,000.

Pa., Salford—MANUFACTURING—Salford Cabinet Works, Salford, reconstructing interior of mfg. plant, own forces. $55,000.

Pa., Uniontown — GARAGE — Reisinger Motor Sales, Uniontown, 1 story, 84x116 ft., steel, concrete block garage addn., to J. J. Bendik, 6 Gilmore St. Est. $60,000. Emil R. Johnson, 24 Robinson St., archt.

Pa., Uniontown — GARAGE — West Penn Power Co., Wood St., Pittsburgh, 1 story, 42x92 ft. and 70x100 ft., stone, steel, garage, N. Beeson Ave., to Hankins Paulson, 108 N. Beeson Ave. Est. $75,000. Hoffman & Crumpton, 700 Century Bldg., Pittsburgh, archts.

R. I., Bristol—WAREHOUSE—U. S. Rubber Co., 355 Valley St., Providence, brick, steel warehouse, Valley St., to E. J. Sevigney Constr. Co., 72 Wood St., Warren. Est. $55,000. CD 10/17—ENR 10/24.

R. I., Warwick—FACTORY—Sturdy Eng. Corp., 1464 Post Rd., 1 story, cinder blocks, steel factory, to J. L. Marshall & Sons, 18 East Ave., Pawtucket. Est. $55,000. CD 11/12.

S. C., Bamberg—PLANT and ABATTOIR—Bamberg Electric Refrigeration Co-operative, Inc., Bamberg, freezer locker plant and abattoir, S C 47- S1 Bamberg, to W. P. Crosland, 1623 Harden St., Columbia. $74,359. Bids 11/22. CD 11/15—ENR 11/21.

Tenn., Chattanooga—PLANT—Mascot Stove Co., 23 and Chestnut Sts., 1 story, 170x400 ft., brick, concrete, steel plant, to A. F. Hahn, 201 Chestnut St. Est. $250,000. B. F. Hunt Assoc., James Bldg., archts.

Tenn., Chattanooga — FOUNDRY — Columbian Iron Works, Plant 1, 2501 Chestnut St., design and construction concrete steel foundry to Ford Bacon Davis Constr. Corp. 39 Broadway New York. Est. $275,000. CD 8/7—ENR 8/22.

Tenn., Chattanooga — PLANT — Tennessee Paper Mills, North Chattanooga, paper mill addns., to John C. Becking Co., 324 James Blvd. Est. $175,000. S. T. Franklin, 714 Lindsay St., archt. CD 11/11.

Tenn., Memphis—PLANT—Abraham Bros. Packing Co., 705 S. Dudley St., meat packing plant expansion, to Sam P. Maury Co., 1970 Crump Ave. Est. $300,000. Henschlen, Everds & Crombie, Van Buren St., Chicago, Ill., archts.

Tenn., Nashville—SERVICE STATION—Gulf Refining Co., 51 Ave., service station, Harding Rd. Owner builds. $80,000.

Tex., Bay City—PLANT—Jack Arron, Bay City, gasoline plant expansion and imprvs., $90,000 and crude oil pipelines, $50,000, own forces. CD 6/20—ENR 7/11.

Tex., Dallas—FACTORY—A. L. Silver, 1105½ Commerce Bldg., 2 story, masonry clothing mfg. factory bldg., to Miller & Norton, c/o Lucius O'Bannen, archt., 2610 Fairmont St., archt. Approx. $65,000.

Tex., Dallas—SERVICE STATION—Sinclair Refining Co., 840 S. Lamar St., service station, force account. $60,000.

Tex., Houston—MAIL ORDER—Sears, Roebuck & Co., 4201 Main St., 2 story, 146x315 ft., rein.-con., brick, commercial mail-order bldg., slab fdn., to W. S. Bellows Constr. Co., 716 N. Everton St. Approx. $350,000. Kenneth Franzheim, 2306 Crawford St., archt.

Wash., Spokane—BUS TERMINAL—Spokane Union Bus Depot Co., c/o S. H. Hawley, 508 W. Cataldo St., bus terminal, to McInnis & Roberts and Henry George & Sons, Hutton Bldg. $274,813. Bids 10/30. CD 11/7—ENR 11/14, under LB.

W. Va., Dola—COAL TIPPLE—Ruppert Coal Co., Flemington, steel, concrete coal tipple, to Henry Haesselbacker, 302 W. Virginia Ave., Clarksburg. Est. $100,000.

W. Va., Elkins—PLANT—Shepherd Limestone Co., Elkins, steel, concrete, limestone plant, to Henry Hasselbacker, 302 W. Virgina Ave., Clarksburg. Est. $60,000.

W. Va., Morgantown—DAIRY—Sanitary Milk Co., Morgantown, 3 story, 30x51 ft., brick steel dairy addn., to Baker & Coombs, Domain St. Est. $60,000. CD 11/7—ENR 11/14.

W. Va., Wheeling—FACTORY—Block Bros. Tobacco Co., 4000 Water St., design and construction 5 story, brick, steel cigar and tobacco factory, to Austin Co., 16112 Euclid Ave., Cleveland, O. Est. $750,000.

Wis., Kewaskum—FACTORY—Kewaskum Utensil Co., 1 story, 80x200 ft., steel, brick factory addn., concrete fdn., to Hron Bros. Inc., 213 N. Main St., West Bend. J. P. Bruecker, 746 E. Day Ave., Milwaukee, Zone 11, archt.

Wis., Milwaukee—POWER PLANT—Joseph Schlitz Brewing Co., 235 W. Galena St., masonry constr. power plant, separate contracts. Over $100,000. H. A. Kuljian & Co., 1518 Walnut St., Phila., Pa., engrs.

Wis., Spring Green—PLANT—Wis. Hybrid Corn Assoc., Spring Green, 4 story, 82x173 ft. steel, concrete block corn processing plant, rein.-con. fdn., day labor. $150,000.

Wis., West Allis—PLANT—Wisconsin Motor Corp., 1910 S. 53 St., Zone 14, design and construction 2 story, 24x111 and 2 story, 68x77x100 ft. steel, brick plant addns., concrete fdn., to Klug & Smith Co., 111 E. Wisconsin Ave., Milwaukee, Zone 2. Est. $70,000.

Man., Winnipeg — WAREHOUSE, etc. — Canadian Oil Co., Ltd., Terminal Bldg., Toronto, Ont., brick warehouse, storage tanks on Notre Dame Ave. W., own forces. Approx. $239,000.

N. S., Sydney—TERMINAL—J. Azar, Sydney, bus terminal, day labor. $150,000. A. E. Priest, 428 Roble St., Halifax, archts.

Ont., Cornwall — WAREHOUSE — Gamble Robinson Ltd., Redpath St., Ottawa, brick, concrete warehouse, to L. C. Dalgliesh, 228 W. Third St. $60,000.

★**Ont., Copper Cliff**—PLANT—International Nickel Co. of Canada, Ltd., R. L. Beattie, vice pres., Copper Cliff, smelter addn., to Nordale Const. Co. Ltd., Copper Cliff. Approx. $7,500,000. I. J. Simcox, c/o owner, engr. CD 5/8—ENR 5/30.

Ont., Kingston—GARAGE TERMINAL—Colonial Coach Lines, 1188 Dorchester St. W., Montreal, Que., 58x117 ft. terminal, 138x253 ft., rein.-con., brick, terra cotta garage on Hy. 33, west of here, to M. Sullivan & Son, Ltd., 234 Engin St., Arnprior. Approx. $400,000. CD 10/2—ENR 10/10.

Ont., Ottawa — LAUNDRY — Owner, c/o Hazelgrove, Lithwick & Cameron, archts., 53 Queen St., 2 story, concrete, brick power laundry, Wellington St., to J. More & Son Ltd., 254 Queen St. $72,000.

Ont., Preston—FACTORY—Schmidt Furniture Ltd., Preston, factory addn., to Reitzels Ltd., 54 Allen St. W., Waterloo. Est. $60,000. CD 9/24/45—ENR 10/4/45.

Ont., Toronto—WAREHOUSE, etc.—Wm. Halliday & Son, 127 Bessborough Dr., Leaside, 2 story, brick, concrete block, steel stone warehouse and offices, own forces. $150,000. Stanford & Wilson, 18 Grenville St., archts.

Ont., Scarboro (Toronto)—WAREHOUSE, etc.—Allis-Chalmers Rumely Ltd., 1244 Dufferin St., Toronto, 1 story, 160x200 ft., steel, brick warehouse and offices, concrete fdns., Danforth Rd., to Milne & Nicholls Ltd., 57 Bloor St. W., Toronto. Approx. $175,000. Marani & Morris, 46 Bloor St. W., Toronto, archts.

Ont., Waterloo—BREWERY—Carling Breweries Ltd., 155 Kent St. S., brewery exten., to Dunker Constr. Ltd., 251 King St. W., Kitchener. Approx. $250,000. T. J. Ferguson, 297 Victoria St., Toronto, engr.

Ont., Windsor—PLANT—Galatin Products Ltd., 1370 Argyle Rd., plant remolding, to Harry Startup, c/o owner. Est. $100,000. Sheppard & Masson, 52 Chatham St., archts.

Que., Montreal—FACTORY, etc.—Canada Carpet Cleaning Co. Ltd., 714 Vietre St., 1 and 2 story, 80x165 ft., factory, office and showroom, Namur St. and Montee Cote des Neiges, to Walter G. Hunt Co., Ltd., 1405 Bishop St. Approx. $100,000. Lake, Little & Mace, 1410 Guy St., archts.

INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

Que., Montreal—FACTORY, etc.—National Maple Butter, Inc., 51 Laurier Ave. E., factory, office and warehouse, Henri Julien Ave. and Maguire St., to Charles Duranceau, Ltd., 5847 Hamilton Ave. Approx. $250,000. Archambault & Roy, 6370 1 Ave., Rosemont, engrs.

Que., Montreal — WAREHOUSE — Robert Simpson Co. Ltd., Queen and Yonge Sts., Toronto, Ont., mail order warehouse, St. James St. and Greene Ave., to Foundation Co. of Canada, Ltd., 1538 Sherbrooke St. W. Approx. $250,000. C. H. Copeman, 1117 St. Catherine St. W., archt. Margison & Babcock, 137 Wallington St. W., Toronto, Ont., engrs.

Que., St. Claude—PLANT—La Co-operatif du Lait, Inc., St. Claude, 2 story, 45x145 ft., concrete dairy products plant, to A. Coutu, St. Claude. $55,000.

Que., St. Madeleine—GRAIN ELEVATOR, etc.—A. Guertin, St. Pie de Bagot, 3 story, 56x250 ft. rein.-con., steel, asbestos siding grain elevator, flour mill, store, etc., day labor. Approx. $100,000.

Que., Ville La Salle—FACTORY—Ralston Purina Co. Ltd., 404 Main St., Woodstock, Ont., factory, to C. Duranceau, 5847 Hamilton St., Montreal. Est. $100,000. CD8/2—ENR 8/8.

UNCLASSIFIED

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked December 10

†**N. Y., Staten Island**—STRUCTURE REMOVAL—Dist. P. Wks. Office, Third Naval Dist., 90 Church St., New York. Zone 7, demolition and removal structures, Piers 7 and 8, at U.S. Naval Berthing Facility. Spec. 18164. Plans deposit $10.

Bids Asked December 13

†**D. C., Wash.**—PLAYGROUND—Dpt. Interior. 2220 Interior Bldg., 18 and C Sts. N.W., imprv. Lincoln Playground.

LOW BIDDERS

★**N. Y., Brooklyn**—SIGNAL EQUIPMENT—Bd. Transportation, 250 Hudson St., New York, Zone 13, signal equip., Contr. S-45 Fulton St. Line, Pitkin Ave. Yard, from Emerson-Garden Electric Co., Inc., and L. K. Comstock & Co. Inc., 155 E. 44 St., New York, Zone 17. $1,172,469. CD 11/6—ENR 11/14.

★**Texas and Missouri**—GAS PIPELINE—Mississippi River Fuel Corp., 407 N. 8 St., St. Louis, Mo., project indefinitely postponed 225 mi. 22 in. natural gas pipeline carrier between Carthage, Tex., and St. Louis, Mo., $10,000,000; natural gas gathering lines, Carthage, Tex., $125,000. CD 9/18.

★**Texas**—OIL PRODUCTS PIPELINE—Cosden Petroleum Corp., 1516 E. El Paso St., Fort Worth, project indefinitely postponed 325 mi. 4 in. oil products pipeline from Big Spring area to Fort Worth-Dallas Area. Howard Co. $2,500,000. CD 9/18—ENR 9/26.

CONTRACTS AWARDED

Illinois — TRANSMISSION LINES — Southwestern Electric Cooperative, Inc., V. C. Kallal, mgr., Greenville, 150 mi. rural electric transmission lines Madison Co., force account. $180,000. Rural Line Engineers, 2 S. Central Ave., Clayton, St. Louis, Mo., engrs.

Illinois — TRANSMISSION LINES — Southwestern Electric Cooperative, V. C. Kallal, mgr., Greenville, 146 mi. short extens. and rehabilitating existing lines in Bond, Madison and Saline Counties, own forces. $225,000. Rural Line Engineers, 2 S. Central Ave., Clayton, St. Louis, 5, Mo., engrs. CD 11/21.

Ill., Danville—LIGHTING SYSTEM—City, imprv. boulevard lighting sys., to Edwin C. Leverenz Electrical Co., Danville. $69,237. Bids 9/4, awarded 11/26. CD 9/12—ENR 9/19, under LB.

Iowa—RURAL ELECTRIC LINES—Co-operative Electric Co., L. J. Vandermyde, mgr., St. Ansgar, 76 mi. rural electric lines, Chickasaw, Worth, Howard, Floyd and Mitchell Counties, own forces. Approx. $100,000. Stanley Eng. Co., Muscatine, engr.

Mass., New Bedford—COAL TERMINAL—Holmes Coal Co., 552 Pleasant St., coal terminal, incl. coal docks, loading facilities, 20x30 ft. office, 140x140 ft. open pocket, scales, to Sullivan & Foster, Inc., 43 William St., New Bedford. Est. $45,000.

Minnesota — TRANSMISSION LINES — Minnesota Valley Co-operative Light & Power Assn., Montevideo, 50 mi. rural electric transmission lines in Chippewa, Lacqui Parle and Yellow Medicine Counties, to Morke Hardware & Electric Co., Clarksfield. $49,412. United Eng. Service, 600 Kasota Bldg., Minneapolis, engr. CD 7/18—ENR 7/26.

Missouri—RURAL ELECTRIC LINES—Callaway Electric Co-operative J. P. McClanahan, mgr., Fulton, 38 mi. rural electric lines and 172 mi. electric transmission lines, Callaway Co., own forces. $250,000. F. Horton & Co., Lamar, engrs.

N. Y., Brooklyn—PLATFORM EXTENSIONS—Bd. Transportation, 250 Hudson St., New York, Zone 13, platform extens. at Hoyt St. Station, Brooklyn-Manhattan branch of New York City Transit Sys., IRT Div., Constr. 2, to National Structures Corp., 10 E. 40 St., New York, Zone 17. $678,333. CD 10/31—ENR 11/7, under LB.

South Carolina—TRANSMISSION LINES—Blue Ridge Electric Co-operative Inc., Pickens, power lines in Greenville, Pickens, Oconee, and Anderson Counties, own forces. $724,000. CD 11/25—ENR 12/12.

Texas—CABLE LINES—Southwestern Associated Telephone Co., Goose Creek, 12 mi. underground cable lines, force account. Approx. $250,000. CD 11/22.

Ont., South Baymouth—WHARF—Dpt. P. Wks., Ottawa, reconstructing, exten. wharf, to L. R. Brown, 52 The Drive, Sault St. Marie. $40,700. R. Blais, c/o owner, engr.

Ont., Tobermory—WHARF, etc.—Dpt. P. Wks., Ottawa, wharf and dredging, to Detroit River Constr. Co. Ltd., Hannibal St., Blenheim. $97,085. CD 11/6—ENR 11/14.

Que., Miguasha—WHARF, etc.—Dpt. P. Wks,. Ottawa, Ont., wharf and breakwater, to Capt. J. Allard, Gros Cap. $93,526. CD 11/11—ENR 11/14.

PROPOSED PROJECTS

Including class of projects previously listed as *postwar*

COMMERCIAL BUILDINGS

PROPOSED WORK

Ark., Blytheville — Blytheville Housing Comn., Blytheville, plans by U. S. Branson, Blytheville, 40 duplex dwelling units and administration bldg. $400,000.

Calif., Bakersfield—St. Francis Parish, c/o Rev. W. McLaughlin, 1520 Truxton Ave., Bakersfield, high schools on 40 acre site, LaCresta Dist., Kern Co. $500,000.

Calif., Loma Linda — College of Medical Evangelists, 312 N. Boyle Ave., Los Angeles, plans completed by J. Dewey Harnish, 212 E B St., Ontario, 3 story, rein.-con. hospital addn. $275,000. Financing provided. H. C. Whittlesey, 525 N. Normandie Ave., Los Angeles, consult. engr.

Calif., Oakland—Swigs, Melvin Swig, pres., 15 St. and Broadway, (lessee) plans by Claude Alben Stiehl, 3124 E. 14 St., interior remodeling dept. store. $750,000.

Calif., Santa Monica—Southern Calif. Telephone Co., 740 S. Olive St., Los Angeles, 2 story, rein.-con. telephone bldg., 625 Arizona Ave. $300,000.

Conn., Bridgeport — North End Talmud Torah Synagogue, L. Jacobson, pres., 12 Congress St., preliminary plans by H. E. Koerner, 83 Fairfield Ave., modern, brick, stone synagogue, Main St. Over $205,000. Financing not provided. CD 12/10/45—ENR 12/27/45.

Conn., East Hartford—East Hartford Hospital, 759 Main St., plans by Ebetts & Frid, 15 Lewis St., Hartford, 3 story, 45x120 ft., brick, concrete hospital addn. $205,000.

Conn., Southport—**Frank J. Labbance, 731** Jennings Rd., Fairfield, plans by Cameron A. Clark, Merwins Lane, Fairfield, 21 one family frame houses and 14 two family houses, Kings Highway, Center St., and Sasco Creek Sect. $350,000.

Fla., Jacksonville—Y.M.C.A., c/o H. Dew, 230 E. Forsyth St., plans by S. R. Fetner, Rogers Bldg., Jacksonville, Y.M.C.A. Youth Memorial Bldg. $800,000. Financing provided. CD 5/2—ENR 5/16.

★**Fla., Miami Beach**—Deauville Hotel, Ocean at 67 St., plans by John Coman, 13 W. 29 St., New York, N. Y., 6 story, 200 room hotel annex. $1,000,000. Financing provided. CD 10/31—ENR 11/14.

Fla., Tallahassee—Trinity Methodist Church, c/o C. M. Haynes, pastor, 610 N. Adams St., plans by Barber & McMurry, 517½ W. Church Ave., Knoxville, Tenn., church. $350,000. CD 5/29—ENR 6/13.

Ga., Cairo—The Cairo Hotel Co., Inc., Cairo, hotel. Over $205,000. Financing provided.

★**Ga., West Point**—Chattahoochee Valley Hospital Society, J. W. Johnson, pres., West Point, plans by Robert & Co., Bona Allen Bldg., Atlanta, 83 bed hospital. $1,000,000. Financing provided. CD 11/15—ENR 11/28.

Ill., Chicago—Atchison, Topeka & Santa Fe R.R., G. W. Harris, ch. engr., 80 E. Jackson Blvd., plans by C. O. Coverly, c/o owner, 1 story, 90x135 ft., steel, brick, concrete commissary. $422,800.

★**Ill., Chicago**—Loyola University, 6525 Sheridan Rd., preliminary plans by Barry & Kay, 53 W. Jackson Blvd., 8 story, brick, steel, stone, concrete medical and dental school. $1,500,000.

Ill., Chicago—Salvation Army, 719 N. State St., Chicago, plans by A. C. Fehlow, 719 N. State St., Chicago, 3 story, 90x120 ft. brick, rein.-con. industrial home. $300,000.

Ill., East St. Louis—S. S. Kresge Co., 207 Collinsville Ave., plans by W. J. Knight & Co., engrs. and archts., Missouri Insurance Bldg., 705 Chestnut St., St. Louis 1, Mo., 1 and 2 story, bsmnt, 70 x 180 ft., brick, steel, concrete air-conditioned department store, 10 St. and Illinois Ave. (State St.) $210,000. CD 10/31—ENR 11/14.

La., New Orleans—Tulane University, 6823 St. Charles Ave., New Orleans, plans by Moise H. Goldstein, Charles R. Armstrong, Richard Koch, American Bank Bldg., New Orleans, alterations and imprvs. to bldgs. $300,000.

Md., Annapolis—Veterans of Annapolis, 96 Duke of Glouster St., plans 50% completed by Earl Harder, 137 Spa View Ave., and L. Drexel, assoc. archts., 3105 Clearspring Rd., Baltimore, 2 story, brick, cinder block recreation hall, incl. kitchen, cloak rooms, lodge room, memorial hall, rest rooms. $250,000. Farsant & Kooken, 347 N. Charles St., Baltimore, structural engrs.

★**Mass., Dorchester**—St. Joseph Parish, Center St., Dorchester, plans completed by James Charles Flaherty, 185 Devonsheer St., Boston, 4 story, brick, steel, concrete home for Aged People, St. Joseph's Hall, Center St. $1,000,000.

Mass., New Bedford—New Bedford Dry Goods Co., 182 Union St., New Bedford, plans by Tallman, LaBrode & Rounseville, 222 Union St., New Bedford, brick, steel, merchandise store addn. $205,000.

Minn., Minneapolis—Lake Harriet Lutheran Church, Rev. O. A. Anderson, pastor, 44 St. and Upton Ave., South, plans by Hills, Gilbertson & Hayes, 1409 Willow St., church bldg. $225,000. CD 11/20.

Minn., Winona—Y.M.C.A., c/o Bd. Directors, S. A. Boyd, genl. secy., YMCA bldg. to replace one destroyed by fire. $470,000.

N. J., Camden—Y.M.H.A., 145 E. 32 St., New York, N. Y., bldg. $400,000. Financing not provided.

N. J., Delaware Twp. (Ellisburg P. O.)—John T. Canal, 28 Willis Ave., Merchantville, plans under way, residential development. Over $205,000. Financing provided.

N. J., Pennsauken—Camden Defense Homes, Inc., 312 Penn St., Camden, plans under way, residential development. Over $205,000. Financing provided.

★**N. Y., Bellerose Hills**—Gross-Morton Co., 160-16 Jamaica Ave., Jamaica, plans by B. Braunstein, 163-18 Jamaica Ave., Jamaica, 600 family garden apartment project at Union Turnpike and Commonwealth Blvd., on approx. 30 acre site. $2,000,000.

N. Y., Brooklyn—Israel Zion Hospital, 4802 Tenth Ave., Zone 19, plans completed 1 story, boiler house and tunnel, 937-83 49 St. $200,000. Financing provided. Charles B. Meyers, 31 Union Sq., New York, Zone 3, N. Y., consult. engr.

N. Y., Douglaston—Marathon Homes, Inc., c/o Alwin Cassens, Jr., archt., 92-32 Union Hall St., Jamaica, plans completed, 29 one-family homes, 61 and 62 Aves., 246 Pl. and 245 Lane. $237,800. Financing provided.

N. Y., Flushing—Croyden Homes, Inc., c/o Samuel Paul & Assoc., archts., 163-18 Jamaica Ave., Jamaica, plans completed, four 2 story, 2 family homes and 29 two story one family homes, 195 St. and Northern Blvd. $243,000. Financing provided.

N. Y., Hollis—Burlington Homes, Inc., c/o Stanley Klein, archt., 90-04 161 St., Jamaica, plans completed, 34 one-family homes, Hollis Court Blvd. and E. 190 St. $221,000 Financing provided.

N. Y., Jackson Heights—**23 Ave. Development Corp., c/o H. I. Feldman, archt., 415 Lexington Ave., New York, Zone 17, plans completed 40 one and two family homes, 23 Ave., 96, 97, and 98 Sts. $300,000. Financing provided.

★**N. Y., New York**—Madison Square Garden Corp., 307 W. 49 St., Zone 19, plans by Leon & Lionel Levy, 331 Madison Ave., Zone 17, sports arena on 2 block area from W. 58 to W. 60 St. between Columbus Circle and Columbus Ave., incl. 2,000 car garage. $20,000,000. CD 11/18.

N. Y., North Hempstead—Queensboro Trading Corp., c/o Joseph Goldberg, 110 E. 42 St., New York, Zone 17, plans completed by Arthur Jovis, 152 W. 42 St., New York, Zone 18, 75 one family homes on 2, 3, 4, 5, 6, and 7 Sts. between Nassau Blvd. and Central Ave. $750,000. Financing provided.

N. Y., Queens Village—Commonwealth Homes, c/o Stanley Klein, archt., 90-04 161 St., Jamaica, plans completed 50 one and two family houses, Commonwealth Blvd., 87 Ave. and 87 Dr. $340,000. Financing provided.

N. Y., Queens Village—Queens Station Homes, c/o J. Herbert Burmeister, archt., 100-39 205 St., Hollis, plans completed, 27 two story homes, Springfield Blvd., 99 and 98 Aves. $216,000. Financing provided.

N. Y., West New Brighton—New York Telephone Co., 140 West St., New York, Zone 7, plans by Voorhees, Walker, Foley & Smith, Inc., 101 Park Ave., New York, Zone 17, 3 story, central office bldg. at Forest Ave. Y.N.W.C. Hart Blvd. $205,000.

N. C., Charlotte—H. Y. Dunaway Co., 110 E. 4 St., several residential sections. Over $205,000. Financing provided.

★**N. C., Winston-Salem**—**Baptist Hospital, Winston-Salem, c/o M. A. Huggins, gen. secy.-treas. Recorder Bldg., Raleigh, hospital wing. $1,000,000. Financing provided.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

O., Bluffton—Bluffton College, 155x160 ft. gymnasium-auditorium, at rear of Science Hall. **$250,000.** Financing not provided.

O., Lyndhurst—Horatio Ford, Williamson Bldg., Cleveland, plans by Maier, Walsh & Dickerson, Erie Bldg., Cleveland, 9 two story brick, steel garden type apartment houses at Richmond and Mayfield Rds. **$500,000.** Legal obstacles to be overcome.

Ore., Portland—J. J. Collins, 2841 N. Columbia Blvd., plans by R. Panhorst, 3022 N. Flint St., twenty 1 story, bsmnt., frame duplex bldgs., Greeley Ave. between Sumner and Webster Sts. Est. **$360,000.** Financing provided.

Pa., Altoona—A. Netopoulos, 1104 14 Ave., plans by Shollar & Shollar, 2000 Maple Ave., 1 story, 80x120 ft., brick, tile A. & P. store. **$210,000.** The Great Atlantic & Pacific Tea Co., lessee.

Pa., Glenside—Owner, c/o L. F. McMullin, Wyncote, plans under way, residential development, Glenside and Willow Grove Aves. **$700,000.** Financing provided. Legal obstacles to be overcome.

★**Pa., Manoa**—Lewis Jamison, c/o Murray Realty Co., 1616 Chestnut St., Phila., plans under way, shopping center, theater, stores and super-market. **$1,500,000.** Financing provided.

Pa., Phila.—The Broadwood Hotel, c/o Willard D. Richman, pres. Broad & Wood Sts., plans under way imprvs. **$250,000.** Financing provided.

Pa., Phila.—Pennsylvania R.R., Old Broad St. Station Bldg., plans under way, office bldgs. 16, 17, 18 Sts. and Penn Blvd. Each over **$205,000.** Financing provided.

Pa., Washington—St. Hiliary's Polish Catholic Church, Henderson Ave., plans by G. Gary Dickson, 56 McKennan Ave., 1 story, bsmnt., stone church, and rectory. **$259,000.**

R. I., East Providence—Samuel Bomes, 14 Miller Ave., Providence, plans by Dimitri & Dimitri, 17 Exchange St., Providence, 2 story, bsmnt., brick, steel theater. Warren and Pawtucket Aves. **$325,000.**

R. I., Pawtucket—New England Tel-Tel Co., J. L. Duffy, 50 Oliver St., Boston, Mass., plans by Jenks & Ballou, 2600 Industrial Trust Bldg., Providence, 3 story, bsmnt., brick, stone and steel telephone office and exchange. **$500,000.** Financing provided.

★**S. C., Spartanburg**—National Hotel Co., The A.N.I. Bldg., Galveston, Tex., 175 room hotel. **$1,000,000.** Financing provided.

Tenn., Johnson City—Munsey Memorial Church, Johnson City, plans by Abernethy & Cardwell, 144½ E. Market St., church. **$205,000.** Financing provided.

Tenn., Nashville — Blakemore Methodist Church, 105 30 Ave., church auditorium. **$225,000.** Financing provided.

Tex., Dallas—Calvary Baptist Church Congregation, 1822 W. 10 St., 3 story, rein.-con. brick, stone, steel educational bldg., pier fdn. **$210,000.** Financing not provided.

Tex., Dallas—Southern Methodist University, Dallas, plans by Mark Lemmon, Tower Petroleum Bldg., 20 room class-room bldg. **$275,000.** Financing provided. CD 5/7/45—ENR 5/17/45.

Tex., Devine—Methodist Church Congregation, Devine, church. **$210,000.** Financing not provided.

★**Tex., Galveston**—Galveston Diocese, c/o Most Rev. C. E. Byrne, 1402 Broadway, Junior Seminary Bldg. **$300,000;** seminary bldg. **$300,000;** orphanage, **$400,000.** Financing not provided.

Tex., Goose Creek — Tri-Cities National Guard, c/o Pat Blakeney, armory. **$210,000.** Financing not provided.

Tex., Houston—Dr. J. Robert Baier, 6721 Harrisburg Rd., plans completed by R. W. Leibsle, 2428 Southmore St., 2 story, brick veneer 150-apartment unit bldg. **$750,000.** Financing provided.

★**Tex., Houston**—Gulf Oil Corp., Gulf Bldg., plans completed by A. C. Finn, Bankers Mortgage Bldg., 12 story, bsmnt., 79 x 102 ft. office addn. **$1,500,000.** Financing provided. R. J. Cummins, consult. engr. and R. F. Taylor, mech. engr., both Bankers Mortgage Bldg.

Tex., Houston—Lee Bros., c/o Lee Bros. Oil Co., Commerce Bldg., plans by Werlin & Kiefner, 3501 Buffalo Dr., 100 unit apartment hotel. **$240,000.** Financing provided.

Tex., Houston—The Lord's Church, c/o E. G. Gerhart, archt., 16 Waugh Dr., concrete pier fdn., etc., sanctuary bldg. air-conditioned. **$205,000.** Financing provided.

Tex., New Braunfels — Methodist Church Congregation, New Braunfels, church. **$225,000.** Financing not provided.

Tex., San Angelo—Sears, Roebuck & Co., San Angelo, plans under way, commercial bldg. **$210,000.** Financing provided.

Tex., Seguin—Methodist Church Congregation, Seguin, church. **$210,000.** Financing provided.

Tex., Seguin—Texas Lutheran College plans by Atlee B. & Rob. M. Ayers, Transit Tower, San Antonio, 2 story, concrete, brick library, pier fdn. **$250,000;** grandstand, bleachers, **$60,000.** Financing provided. CD 1/25/45—ENR 2/8/45.

Tex., Sherman—Austin College, Sherman, class room bldg., machine shop; storage bldg. **$300,000.** Financing provided.

Tex., Texarkana — Two States Telephone Co., c/o A. C. Stuart, 800 Texarkana Natl. Bank Bldg., plans by Witt & Reinheimer, 411 Texarkana Natl. Bank Bldg., 2 story, 90x110 ft., brick, rein.-con. telephone bldg., pier fdn., air-conditioning. **$250,000.** Financing provided.

Tex., Waco—Baylor University, Waco, plans by Harry L. Spicer, Amicable Bldg., journalism bldg., class rooms, warehouse and storage bldg. **$275,000.** Financing provided.

Va., Richmond — First Baptist Church, Boulevard and Monument Aves., plans by J. Binford, Walford & O. Pendleton Wright, 103 E. Cary St., church addn. between Monument and Park Aves. at Boulevard. **$300,000.**

Wash., Seattle—First American Corp., 1010 Second Ave., plans by Thomas, Grainger & Thomas, Arcade Bldg. 2 & Union Sts., Zone 1, 36 one story, bsmnt., 24x39 ft. frame homes on E. 82 St. between 36 and 37 Aves. N. E. **$360,000.** Financing provided.

Wash., Tacoma—Woodworth & Co., Inc., 1200 E. D St., 103 homes in Lincoln Park addn. **$978,500.**

Ont., Brantford—Dominion Stores Ltd., 3 Sullivan St., plans by R. H. Bishop, c/o owner, 130 x 453 ft. master market, Market and Darling Sts. Approx. **$250,000.**

Ont., Fort William—Fort William Pub. Utilities Comn., Fort William, plans by H. M. Scott, 200 Cuthertson Block, telephone exchange bldg. Approx. **$350,000.**

Ont., Hamilton—McMaster University, W. R. Frost, dir., sketch plans by W. S. Somerville, 1104 Bay St., Toronto, 120x140 ft., David Miller Memorial Library, stone. **$600,000.** CD 5/17—ENR 5/23.

Ont., London—London Realty Co., D. B. Weldon, pres., Huron & Erie Bldg., plans by O. R. Moore & Co., 260 Dundas St., 60 room addn. to Hotel London. **$250,000.**

Ont., Sarnia—Housing Enterprises Ltd., 395 Fleet St., W., Toronto, two 60 unit apartment projects. Approx. **$750,000.**

Que., Magog—Roman Catholic Parish of St. Marguerite Marie, Rev. O. Vel, cure, Magog, plans by J. Aime & A. Poulin, 63 Prospect St., Sherbrooke, concrete, steel church and presbytery. **$300,000.** CD 4/5/45—ENR 4/19/45.

★**Que., Montreal**—Bell Telephone Co. of Canada Ltd., 1050 Beaver Hall Hill, plans by Baratt, Marshall, Montgomery & Merritt, Canada Cement Bldg., 7 and 8 story, steel, stone, concrete bldg. addn., air conditioning, elevators. Approx. **$4,0000.000.** McDougall & Freidman, 1235 McGill College Ave., engrs.

Que., Montreal—Franke & Levasseur, c/o P. Colangelo, archt., 1540 Stanley St., apartment house. **$250,000.**

★**Que., Quebec City**—Housing Enterprises of Canada Ltd., 395 Fleet St. W., Toronto, Ont., plans by H. J. Doran, Dominion Square Bldg., Montreal, 68 three story apartments. Approx. **$1,000,000.** Amyot & Marchand, 105 Cote de la Montagne, Montreal, engrs. CD 10/16—ENR 10/31.

Que., Quebec City—R. C. Parish of St. Francoise Cabrini, c/o His Eminence Cardinal Villeneuve, The Palace, church and presbytry. **$225,000.**

Que., St. Angele de Laval—Freres de Ecoles Chretiemes, 1262 Chenine St., plans by Freres Maurele and Emile, c/o owners, Juvenat, noviciat and scolasticat. Approx. **$500,000.** CD 11/19—ENR 11/28.

★**Que., St. Laurent (PO Montreal)**—J. A. Marien, 649 Rockland Ave., Montreal, housing, in Kings Park. **$1,000,000.**

Que., Sorel—Parish of St. Maxine c/o Rev. L. Ayotte, plans by F. Racicot, 1021 Les Greves St., church and presbytery. **$250,000.** CD 10/9—ENR 10/31.

INDUSTRIAL BUILDINGS

PROPOSED WORK

★**Ala., Gadsden**—GENERATING PLANT—Alabama Power Co., Birmingham, plans under way, steam generating plant. **$10,000,000.** Alabama Power Co., Birmingham, Engr. Dept. Financing provided.

Ark., Ft. Smith—PLANT—C. K. McKendry Packing Co., Ft. Smith, meat packing plant, **$750,000.**

Calif., Oakland—BISCUIT PLANT—George Weston Ltd., 610 Dupont St., Toronto, Ont., manufacturing fine biscuits, bread, cakes, confectionery, etc. **$300,000.**

Calif., Oakland—GARAGE—Key System, 1106 Broadway, 1 story, masonry, steel coach garage, incl. maintenance machine shop and locker rooms, etc. **$300,000.**

Calif., Redwood City—PLANT—Owner, c/o Morgan Stedman, archt., 180 University Ave., Palo Alto, 1 story, 80x200 ft., steel frame, corrugated siding chemical plant. **$200,000.**

Calif., Trona—BOILER HOUSE, etc.—American Potash & Chemical Corp., Trona, plans completed 52x1,000 ft. boiler house exten. and 66x60 ft. structural steel turbine room. **$238,647.** Financing provided. C. C. Moore & Co., 555 S. Flower St., Los Angeles, consult. engr.

Calif., Vernon—FACTORY—National Lead Co., 932 Wilson St., Los Angeles, 3 story, rein.-con. paint factory; 1 story office; 1 story warehouse, 3107 E. 26 St. **$482,000.**

Del., Wilmington—BUS TERMINAL—Wilmington Union Bus Terminal, Gay and High Sts., West Chester, Pa., plans by Robinson Stanhope & Manning, Inc., Equitable Trust Bldg., bus terminal. **$100,000.**

Fla., Winter Haven—PLANT—Bordo Products Co., c/o Chel Lewis, Winter Haven, repairing citrus canning plant. Over **$100,000.**

Ga., Atlanta—WAREHOUSE—Atlanta Oak Flooring Co., 920 Glenwood Ave., plans by Bodin & Lamberson, 44½ Marietta St. N. W., Atlanta, storage warehouse for building materials. **$125,000.**

Ga., Perry—PLANT—Southern Fruit Distributors, Inc., c/o Bart Miller, Henderson Rd., fruit and vegetable canning plant. **$100,000.** Financing provided.

Kan., Great Bend—GRAIN ELEVATOR—Great Bend Milling Co., Great Bend, grain elevator. **$200,000.**

La., Baton Rouge—PLANT—Standard Oil Co. of New Jersey, North Baton Rouge, plans completed crystalline wax mfg. plant. **$146,975.**

La., Monroe—SALES AND SERVICE BLDG. —Lee Rogers Chevrolet Co., 200 Walnut St., Monroe, plans by Radgett & Stubbs, Monroe, 2 story, 15,500 sq. ft. brick, auto sales and service bldg.

Md., Sparrows Point—PLANT—Bethlehem Steel Co., Sparrows Point, sheet metal processing plant. **$711,700;** water treatment plant addn., adding 20 m.g. a day unit, bringing total to 45 m.g. daily.

Mass., Everett — FACTORY — Monsanto Chemical Co., Chemical Lane, Everett, brick, steel, concrete chemical manufacturing factory. $182,100. J. R. Worcester & Co., 79 Milk St., Boston, archts.

Mo., De Soto — REPAIR SHOPS — Missouri Pacific R. R., R. P. Hart, ch. engr., Mo. Pacific Bldg., St. Louis, Zone 3, railroad repair shops addn. **$750,000.** Financing provided.

Mo., Kansas City—WAREHOUSE—Folger Coffee Co., 330 W. 8 St., warehouse, 330 8 St. **$170,000.**

Mo., Kansas City—WAREHOUSE—Meredith Corp., c/o R. O. Stenzel, 228 W. 4 St., Kansas City, Mo., plans by Kivett & Myers, 1016 Baltimore St., warehouse, 18 and Walnut Sts. **$100,000.**

Mo., La Plata — PUMPING STATION — Stanolind Pipe Line Co., Stanolind Bldg., Tulsa Okla., pumping station. **$350,000.** Financing provided.

Mo., St. Louis—WAREHOUSE, etc.—Goodyear Tire & Rubber Co., Inc., 1144 E. Market St., Akron, O., and George W. Dempsey, mgr., 4210 Forest Park Ave., Zone 8, plans under way, 1 story, brick, rein.-con. warehouse and office bldg. Approx. **$250,000.**

Mont., Missoula—FREIGHT HOUSE—Northern Pacific Ry. Co., B. Blum, ch. engr., 176 E. 5 St., St. Paul 1, Minn., steel, rein.-con. freighthouse exten. **$150,000.** Financing provided. Orr Pickering & Assoc., Fratt Bldg., Billings, archts.

★**N. J., Roebling**—POWER PLANT—J. A. Roeblings Sons Co., 640 S. Broad St., Trenton, replacing 1 story, brick, steel power plant with 3 high pressure boilers, generator, pneumatic ash conveyors and dust collectors. **$1,000,000.**

N. Y., Brooklyn—FACTORY—Bush Terminal Co., Broad St., New York, plans completed by William Higginson & Son, 101 Park Ave., New York, Zone 17, altering 7 story factory, foot of 48 St. Bush Bldg. Unit G. **$350,000.** Financing provided.

N. Y., Harmon—REPAIR SHOP—New York Central System, P. W. Kiefer, ch. engr. 230 Park Ave., New York, Zone 17, plans completed. bldg. for locomotive inspection and repair shop. **$189,900.** Financing provided.

N. Y., Jamaica—GAS PUMPING STATION —Brooklyn Union Gas Co., 176 Remsen St., Brooklyn, Zone 2, plans completed gas pump station 158 St. and Evans Rd. **$173,000.** Financing provided.

N. Y., Long Island City—FACTORY—R. Marcus, c/o Jacob Berman, consult. engr., 24-16 Bridge Plaza South, plans completed 1 story factory, 47 Ave. between 37 and 38 Sts. **$110,000.** Financing provided.

N. Y., Long Island City—MANUFACTURING —Wolff Appliance Corp., 14-40 33 Ave., plans completed mfg. bldg. for home appliances, 41-24-24 St. **$125,000.** Financing provided.

N. Y., Maspeth—MANUFACTURING—Circle Wire & Cable Corp., Maspeth Ave., plans completed mfg. bldg. for BX cable, 5500 Maspeth Ave. **$420,000.** Financing provided.

N. Y., New York—GARAGE—Erasul Corp., 1565 Leland Ave., Zone 6, plans completed by Lawrence M. Rothman, 129 E. 124 St., Zone 35, garage, 403-9 E. 108 St. **$135,000.** Financing provided.

N. Y., New York—STORAGE, etc.—122 E. 23 St. Corp., 285 Madison Ave., Zone 17, plans completed by Sydney Goldstone, 285 Madison Ave., Zone 17, altering storage, mfg. and office bldg., 122-30 E. 23 St. **$100,000.** Financing provided.

O., Avon Lake—GENERATOR—Cleveland Electric Illuminating Co., Elmer Lindseth, pres., 75 Public Sq., Cleveland, addn. to house 90,000 kw. turbo-generator, Lake Rd. Over **$100,000.**

Proposal Advertisements see pp. 29 to 32

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OFFICIAL PROPOSALS

Official notices of bids wanted on construction and related work, equipment and material for government, state, municipal departments and private enterprises

RATE: *THE RATE FOR OFFICIAL PROPOSAL ADVERTISING IS 65 CENTS PER LINE (OR FRACTION) PER INSERTION*
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OFFICIAL PROPOSALS

Bids: December 10, 1946 (328)

State Highway Work

STATE OF NEW JERSEY
STATE HIGHWAY DEPARTMENT
TRENTON

NOTICE IS HEREBY GIVEN that sealed bids will be received by the State Highway Commissioner for:

ROUTE 29, SECTION 7C

Construction of Route 29, Section 7C, from Somerville Traffic Circule to Chimney Rock, Somerset County, length 4.08 miles. Federal Project No. FI-178 (6)
Estimated: 22,790 cu.yds. Roadway Excavation-Unclassified
12,900 cu.yds. Subbase
38,600 sq.yds. 7½" Stone Shoulders
6,000 lin.ft. Underdrain, Type F
9,900 lin.ft. Storm Drains-12" to 24" Diameter

Bids for the above will be received at the office of the State Highway Department, Room 102, State House Annex, Trenton, N. J., on Tuesday, December 10, 1946, at eleven o'clock (11:00 A.M. EASTERN STANDARD TIME), and will be opened and read immediately thereafter.

The receipt and opening of bids is subject to the proper qualification of the bidder in accordance with the provisions of the prequalification law and the regulations adopted by the State Highway Commissioner. Bidders must also submit a revised financial statement and statement of plant and equipment with their bid.

NOTE: The proposed project is a "Federal Aid Project" authorized by the provisions of Title 27 of the Revised Statutes of New Jersey and supplements, and by Sections 2, 3 and 4, P.L. 521, 78th Congress, and is to be performed in accordance with the special provisions and requirements of the Federal Works Agency, Public Roads Administration, as outlined in the specifications, which provisions require that labor be employed from lists furnished by the U. S. Employment Service, 9 Division Street, Somerville, New Jersey. The attention of bidders is directed to the special provisions covering subletting or assigning the contract and to the use of domestic materials. The minimum wage paid to all unskilled labor employed on this contract shall be 65¢ per hour. The minimum wage paid to all intermediate grade of labor employed on this contract shall be 75¢ per hour. The minimum wage paid to all skilled labor employed on this contract shall be $1.25 per hour.

Drawings, specifications and form of bid, contract and bond for the proposed work are on file in the office of the State Highway Department, Trenton, N. J., and may be inspected by prospective bidders during office hours. Plans will be furnished on a deposit of Ten Dollars ($10.00) for each set of plans upon application to A. Lee Grover, Chief Clerk, State Highway Department, Room 102, State House Annex, Trenton, N. J. Bids must be made upon the standard proposal forms in the manner designated in the standard State Highway specifications and must be enclosed in sealed special addressed envelopes bearing the name and address of the bidder and work bid upon on the outside, and must be accompanied by a certified check drawn to the order of the Treasurer of the State of New Jersey for not less than ten percent (10%) of the amount of the bid, provided that the said certified check shall not be less than $500.00 nor more than $20,000.00 and must be delivered at the above place on or before the hour named. Copies of the standard proposal forms and special addressed envelopes will be furnished on application. Bids not enclosed in sealed special addressed envelopes will be considered informal and will not be opened. The right is reserved to reject any or all bids.

Signed: Spencer Miller, Jr.
State Highway Commissioner

OFFICIAL PROPOSALS

Bids: December 18, 1946 (335)

Aerial Photographs of Urban Areas

STATE OF NEW YORK
DEPARTMENT OF PUBLIC WORKS
ALBANY, N. Y.
Chas. H. Sells—Superintendent
Specification No. CA-432

1. Pursuant to the provisions of Chapter 57, Laws 1946, Sec. 1 and Chapter 300, Laws 1946, Sec. 8, SEALED PROPOSALS will be received by Henry A. Cohen, Director of the Bureau of Contracts and Accounts, 14th Floor, The Gov. Alfred E. Smith State Office Building, Albany, New York, until 10:30 A. M., Eastern Standard Time, on December 18, 1946 when such proposals will be publicly opened and read, for the following, viz: furnishing photographic negatives, photographic prints, and such other matters that are mentioned in the said specifications.
2. In general, the work covered by these specifications consists of furnishing the Bureau of Arterial Route Planning with approved negatives showing oblique views of portions of each of the 8 urban areas hereinafter listed. The Bureau is now preparing reports which will recommend a highway improvement program for 8 cities within the State of New York. There will be a report for each of the 8 cities, and they will be completed at various times throughout the period from December, 1946 through April, 1947. It is planned that each report will include one or more aerial photographs of the particular city for which it has been prepared.
   The Cities included in this contract are: Schenectady, Binghamton, Poughkeepsie, Rome, New Rochelle, Mechanicville, Johnstown-Gloversville, Yonkers.
   During the stage of report preparation, the Bureau will notify the contractor two weeks in advance to fly an area, giving him precise instructions as to elevation, direction, control points, and areas to be covered. The contractor may be required to take up to six pictures of a particular city at different angles and elevations, but not over twenty-five pictures for the entire contract. Because the areas for which the pictures are desired will not in some cases be definitely known until the report for that area is nearing completion, it is expected that most of the areas will have to be flown independently. If in the opinion of the Superintendent of Public Works or his designated representative, the pictures from the first flight do not give the desired results, the contractor will be required to make a second flight and take additional pictures. No additional compensation will be allowed for this second flight or additional pictures.
3. Specifications, proposal forms and envelopes may be obtained in the Bureau of Contracts and Accounts on the 14th Floor of The Gov. Alfred E. Smith State Office Building, Albany, New York.
4. Each proposal must be made upon the blank form provided and must be submitted in the envelope provided therefor. The specification number must be written on the front of the envelope. The blank spaces in the proposal must be filled in, and no change shall be made in the phraseology of the proposal. Proposals that carry any omissions, erasures, alterations or additions may be rejected as informal.
5. Each proposal shall state the correct gross sum for which the work will be performed, according to the plan, specifications, and the contract therefor. Any proposal may be deemed informal if the said gross sum of each item is not written out in words and in figures. In case of any discrepancy between the said written words and the said figures, the total of the sums as written out in words shall be considered as the amount of the proposal.

OFFICIAL PROPOSALS

6. Any bidder will be given the permission to withdraw the proposal after it has been deposited with the New York State Department of Public Works provided that the bidder makes his request in writing to the Director of the Bureau of Contracts and Accounts prior to 12:30 o'clock P.M., Eastern Standard Time, on the date of the opening of the proposals. Requests by telephone or telegram will not be recognized.
7. Any bidder may be required to submit a statement of his responsibility and experience in performing the services called for herein, as the Superintendent of Public Works may deem to be advisable.
8. Accompanying each proposal, there shall be a certified check in the amount of ten per cent (10%) of the total amount bid. No proposal will be received or considered unless accompanied by the certified check drawn to the order of the "State of New York, Commissioner of Taxation and Finance", in the amount indicated herein.
9. The Superintendent of Public Works reserves the right to reject any or all proposals, and may advertise for new proposals, if in his opinion the best interests of the State will thereby be promoted.
10. The successful bidder will be required to give a bond conditioned for the faithful performance of the contract, in the sum of one-half the proposal, and a separate bond for the payment of laborers and materialmen, in the sum of 100% of the amount of the proposal.

Dated: Albany, New York
November 26, 1946.

Bids: December 17, 1946 (334)

Pumps, Electric Motors, Etc.

CONTRACT 363

SEALED BIDS will be received by the Board of Water Supply, at its offices, thirteenth floor, 120 Wall Street, New York City, until 11:00 A.M., Eastern Standard Time, on Tuesday, December 17, 1946, for Contract 363, for furnishing, testing and delivering two deep well pumps rated 600 gallons per minute at 710 feet total head and twenty-six other pumps of smaller capacities, with electric motors and appurtenances and miscellaneous control equipment, for chambers of the Delaware aqueduct, all as set forth in the specifications.

No bid will be received and deposited unless accompanied by a certified check upon a National or State bank, drawn and made payable to the order of the Comptroller of the City of New York, in the amount of six thousand dollars ($6,000.00), for the proper execution of the contract.

At the above place and time the bids will be publicly opened and read. Pamphlets containing information for bidders, forms of bid and contract, specifications, contract drawings, requirements as to surety, etc. can be obtained at the office of the Secretary at the above address, upon application in person or by mail, by depositing the sum of five dollars ($5.00) in cash or its equivalent for each pamphlet. Within 30 days following the award of contract or rejection of bids, the full amount of such deposit will be refunded for each pamphlet submitted as a bid and a refund of four dollars ($4.00) will be made for each other pamphlet returned in acceptable condition. Arrangements will be made whereby prospective bidders desiring blueprints of the contract drawings for their own use may secure same, the cost thereof to be paid by them. For further particulars, apply at the office of the Chief Engineer at the above address.

IRVING V. A. HUIE, President, HENRY HESTERBERG, RUFUS E. McGAHEN, Commissioners, Board of Water Supply; RICHARD H. BURKE, Secretary.

SEARCHLIGHT SECTION

OFFICIAL PROPOSALS

(Continued from page 30)

Bids: December 18, 1946 (336)

Aerial Photographs of Urban Areas

STATE OF NEW YORK
DEPARTMENT OF PUBLIC WORKS
ALBANY, N. Y.

Chas. H. Sells—Superintendent
Specification No. CA-431

1. Pursuant to the provisions of Chapter 57, Laws of 1946, Sec. 1 and Chapter 300, Laws 1946, Sec. 8, SEALED PROPOSALS will be received by Henry A. Cohen, Director of the Bureau of Contracts and Accounts, 14th Floor, The Gov. Alfred E. Smith State Office Building, Albany, New York, until 10:30 A.M., Eastern Standard Time, December 18, 1946 when such proposals will be publicly opened and read, for the following, viz: furnishing photographic negatives, photographic prints, and such other matters that are mentioned in the said specifications.
2. In general, the work covered by these specifications consists of furnishing the Bureau of Arterial Route Planning with approved negatives showing oblique views of portions of each of the 10 urban areas hereinafter listed. The Bureau is now preparing reports which will recommend a highway improvement program for 10 cities within the State of New York. There will be a report for each of the 10 cities, and they will be completed at various times throughout the period from December, 1946 through April, 1947. It is planned that each report will include one or more aerial photographs of the particular city for which it has been prepared.
   The Cities included in this contract are: Rochester, Batavia, Syracuse, Canandaigua, Watertown, Dunkirk, Ithaca, Hornell, Cortland, Corning.
   During the stage of report preparation, the Bureau will notify the contractor two weeks in advance to fly an area, giving him precise instructions as to elevation, direction, control points, and areas to be covered. The contractor may be required to take up to six pictures of a particular city at different angles and elevations, but not over thirty-five pictures for the entire contract. Because the areas for which the pictures are desired will not in some cases be definitely known until the report for that area is nearing completion, it is expected that most of the areas will have to be flown independently. If in the opinion of the Superintendent of Public Works or his designated representative, the pictures from the first flight do not give the desired results, the contractor will be required to make a second flight and take additional pictures. No additional compensation will be allowed for this second flight or additional pictures.
3. Specifications, proposal forms and envelopes may be obtained in the Bureau of Contracts and Accounts on the 14th Floor of the Gov. Alfred E. Smith State Office Building, Albany, New York.
4. Each proposal must be made upon the blank form provided and must be submitted in the envelope provided therefor. The specification number must be written on the front of the envelope. The blank spaces in the proposal must be filled in, and no change shall be made in the phraseology of the proposal. Proposals that carry any omissions, erasures, alterations or additions may be rejected as informal.
5. Each proposal shall state the correct gross sum for which the work will be performed, according to the plan, specifications, and the contract therefor. Any proposal may be deemed informal if the said gross sum of each item is not written out in words and in figures. In case of any discrepancy between the said written words and the said figures, the total of the sums as written out in words shall be considered as the amount of the proposal.
6. Any bidder will be given the permission to withdraw the proposal after it has been deposited with the New York State Department of Public Works provided that the bidder makes his request in writing to the Director of the Bureau of Contracts and Accounts prior to 12:30 o'clock P.M., Eastern Standard Time, on the date of the opening of the proposals. Requests by telephone or telegram will not be recognized.
7. Any bidder may be required to submit a statement of his responsibility and experience in performing the services called for herein, as the Superintendent of Public Works may deem to be advisable.
8. Accompanying each proposal, there shall be a certified check in the amount of ten per cent (10%) of the total amount bid. No proposal will be received or considered unless accompanied by the certified check drawn to the order of the "State of New York, Commissioner of Taxation and Finance", in the amount indicated herein.
9. The Superintendent of Public Works reserves the right to reject any or all proposals, and may advertise for new proposals, if in his opinion the best interests of the State will thereby be promoted.
10. The successful bidder will be required to give a bond conditioned for the faithful performance of the contract, in the sum of one-half the proposal, and a separate bond for the payment of laborers and materialmen, in the sum of 100% of the amount of the proposal.

Dated: Albany, New York
November 26, 1946

OFFICIAL PROPOSALS

U. S. Government

U. S. Engineer Office, Huntington 18, West Virginia.—Sealed bids will be received here until 3 January 1947 for furnishing all plant, labor, materials and equipment and performing all work for reconstruction of Dam No. 7 Muskingum River, Ohio. Application for specifications and drawing should be made to this office. Copies are available for examination at U. S. Engineer Offices in cities of Cincinnati, St. Louis, Pittsburgh and Louisville. (333)

Official Proposals Columns of
ENGINEERING NEWS-RECORD
are MUST reading, each week for contractors, engineering-construction companies, equipment and materials manufacturers, all over the United States. . . . and used regularly for over 50 years by government, state, county and municipal departments to advertise bids.
Official Proposal Division
ENGINEERING NEWS-RECORD
New York City

EMPLOYMENT OPPORTUNITIES

RATE: 15 CENTS A WORD, MINIMUM CHARGE $3.00

Positions Wanted (full or part time individual salaried employment only), ½ the above rates, payable in advance.

Box Numbers in care of any of our New York, Chicago or San Francisco offices count 10 words additional in undisplayed ads.

Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals.)

Copy for new advertisements received until 10 A. M. Friday for following Thursday's Issue

POSITIONS VACANT

WANTED—ENGINEERS experienced in the design of sewers, sewage treatment plants and water treatment plants. State qualifications, experience and salary requirements. P-787, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ENGINEER-ESTIMATOR wanted. Plumbing, Heating, Air Conditioning. Firm located in Penna. College background desirable but not absolutely necessary. Permanent position. Salary $5000.00 to start. State age, education, experience in first letter. Send photo. P-970, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WANTED—STRUCTURAL Designers and Draftsmen experienced in steel and concrete design, work in New York City, salary at prevailing rates. P-200, Engineering News-Record. 330 W. 42nd St., New York 18, N. Y.

STRUCTURAL ENGINEER to handle design of a number of locks and dams for the control of tidal waters. In reply give age, education, experience, references, marital status, salary desired and snapshot photograph. Apply to Earle M. Rader, County Engineer, Attn. John C. Stephens, Water-Control Engineer, 1301 Courthouse, Miami 32, Florida.

ASSOCIATE ENGINEER—30-40, preferably licensed; Municipal and Power Plant experience desirable; for Consulting Engineer's office, Pittsburgh, Pa. P-177, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WANTED For service in India a Construction Engineer with a team of assistants capable of building a concrete gravity dam 280 feet high duration of contract nearly four years but likely to be extended.

WANTED Also a Mining Expert to take charge of and develop coal, Mica and other mines. Apply with full particulars to M. R. Jaipuria Esqr., The Lingmel, Civil Lines Cawnpore United Provinces India.

WANTED: FOREMAN, experienced on building moving, shoring and heavy rigging. Work in Western Massachusetts. State age, experience, references, and salary requirements. P-188, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WANTED: Structural and highway draftsmen and designers, Boston area, state experience. P-189, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

INSTRUCTORSHIPS, Assistant Professorships, and Associate Professorships in chemical, civil, electrical, and mechanical engineering at midwestern university. Positions probably permanent for satisfactory candidates. Desirable that applicants have graduate degrees. Salaries $2200 to $4000 for nine months service, with extra pay for summer teaching. Please give education, experience, references, and publications in reply to P-190, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WANTED: YOUNG Engineers—Instrument man, field engineer, office engineer, draftsman—for general municipal work with Southern city. Give full details including salary expected in first letter. P-198, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION SUPERINTENDENT for General Contractor engaged in public, commercial and industrial building construction. Give full details of experience, age, salary desired and references. H. A. Williams, 437 N. 23rd Street, Allentown, Pa.

TUNNEL FOREMAN with following: Good salary—long job. Send full qualifications and references first letter. Replies held confidential if desired. Mr. Ragonese, 115 S. Haven St., Baltimore 24, Md.

CONSTRUCTION SUPERINTENDENT: Need job superintendent capable of handling multi-story fireproof construction, hotels, apartment buildings and commercial structures. Must have good background and long experience handling men and subcontractors. Must have ability to organize and coordinate work. Permanent connection on yearly contract basis for right man. In first letter furnish complete summary of background together with references. Taylor Construction Company, 1776 Purdy Ave., Miami Beach, Fla.

(Continued on page 32)

EMPLOYMENT OPPORTUNITIES

(Continued from page 31)

POSITIONS VACANT

EXPERIENCED INDUSTRIAL Salesman with knowledge of wire rope, steel or allied products wanted for one of our clients which is a nationally known wire rope manufacturing company of enviable reputation. Headquarters for the sales territory to be covered is Charleston, W. Va. Liberal salary and earnings possibilities. Please give complete details as to education, past experience, earnings, etc. when replying. Address: Stevenson, Jordan & Harrison, Inc., Industrial Engineers, 19 West 44 St., New York 18, N. Y., Att: Mr. A. J. Bergfeld.

WANTED—Sales Engineer for district representative in charge of our New York Branch office. Must be experienced on centrifugal pump sales and have working knowledge of steam turbines. Commission basis, drawing account. Real opportunity for $10,000 man. Reply must give full particulars as to age, education and experience record. Strictly confidential. Dean Hill Pump Co., 400 E. 16th St., Indianapolis, Ind.

WANTED: Civil Engineer. To become associate in small engineering office doing national business in specialized field. Young man desired. Wesley Bintz, 301½ S. Washington, Lansing 25, Mich.

WANTED: Building Estimator for firm located West Virginia. Must be capable of making complete quantity survey, pricing, meeting public. State age, education, experience, and salary desired in first letter, and when available. Send photograph. P-212, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER Graduate, single preferred, to fill position of Roadmaster of large copper Company, Chile, South America. Experience on railway maintenance of way preferred. 3-year contract. Transportation both ways and salary while traveling paid by Company. In reply give complete details. P-213, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION FOREMAN trained in Civil Engineering to carry out engineering and construction details in connection installation new unit generating station large Copper Company, Chile, South America. Should be experienced installation excavation equipment, building forms and placing of reinforcing for concrete work and pouring of concrete. Would probably later be used as Engineering Assistant, Hydraulic Department, therefore, familiarity with hydraulics in general would be asset. 3-year contract. Transportation both ways and salary while traveling paid by Company. In reply give complete details. P-214, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

FIELD ENGINEER to act as assistant to Smelter Engineer large Copper Company, Chile, South America. Position demands thorough knowledge of theoretical and practical mechanical engineering. Require man who can take over position of Smelter Engineer within 2 or 3 years. 3-year Contract. Transportation both ways and salary while traveling paid by Company. In reply give complete details. P-215, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

JUNIOR SHIFT Boss, single preferred, for work in large Copper mine in Chile, South America. 3-year contract. Transportation both ways and salary while traveling paid by Company. In reply give complete details. P-216, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

JUNIOR ELECTRICAL Engineers, large Copper Company in Chile, South America. Some experience application electrical equipment in industrial plant installations preferred. We require young engineers who are willing to get their training at our Plant and who can advance into various foremen's or engineering positions as they become vacant. 3-year contract. Transportation both ways and salary while traveling paid by Company. In reply give complete details. P-217, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELECTRICIAN, engineering rather than foreman type for work large Copper Company, Chile, South America. 3-year contract. Transportation both ways and salary while traveling paid by Company. In reply give complete details. P-218, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

FIELD ELECTRICAL Engineer to supervise new installations, direct electrical foremen in maintenance and repair of equipment, etc., large Copper Company, Chile, South America. 3-year contract. Transportation both ways and salary while traveling paid by Company. In reply give complete details. P-219, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS VACANT

CONSTRUCTION SUPERINTENDENTS and Assistant Superintendents required by established engineering and construction firm with headquarters New York city for permanent position in constructing petroleum refining, chemical and power plant installation on large scale in U. S. A. and foreign service. In reply state prior experience and salary expected. P-220, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

HEAVY CONSTRUCTION Superintendent experienced in supervision open cut rock railroad and highway excavation. Must be familiar with air churn and horizontal drilling and capable planning for five shovel outfits. Give personal history and experience record, salary expected first letter. P-221, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ENGINEERS, experienced in design of sewers, sewage treatment plants, water works. State qualifications, detailed experience, salary requirements, availability. Pennsylvania firm. P-222, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WANTED: Experienced Foreman to take complete charge of gas line work—must have knowledge of handling job from start to finish—steady work. P-223, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

POSITIONS WANTED

CONSTRUCTION SUPT.—Structural Engineer—Estimator. Age 44, 20 years experience dams, waterfront structures, parkways, roads, bridges, power plants, industrial buildings, wants position with small or medium size contracting organization with opportunity of obtaining interest in business. Present position, supervising Strucutral Engineer with large Consulting and Contracting firm. P.O. Box 164, Collingswood, N. J.

ATTENTION: Equipment or Material manufacturers Distributors: Engineer-Estimator, 34, experienced in all types buildings, state highway, and heavy construction also two years equipment rating and interchangeability studies for national concern covering all types of equipment. Desires position as Sales manager or Salesman with reliable company, will locate anywhere—write or wire. PW-129, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CONTRACTORS SUPERINTENDENT: Graduate Civil Engineer Classified P-4, U. S. Civil Service Commission. Ten Years experience in heavy construction mostly waterfront and earth moving. Age 40, anywhere, immediate. PW-167, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ESTIMATOR. Desires position with reliable building contractor. Many years experience industrial and commercial construction. Now employed but wish to make a change. The best of references. PW-205, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CIVIL ENGINEER, young, desires work, housing field. Prefab. mfg. or erection. PW-206, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

ELECTRICAL ENGINEER: Now employed desires change after January 1st. Over twenty years experience with power company, engineers and contractors. Best of references. Single, free to travel, no objection to foreign duty. Not interested in straight design "On the Go and Work". Prefer outside or mixed work. Can get results. PW-207, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CONSTRUCTION ENGINEER: Superintendent: 20 years experience survey and construction. Municipal, state highway, railroad, piers, airport. Ten years supervisor capacity. Licensed construction engineer (N. J.). Will go anywhere for right proposition. PW-196, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

QUALIFIED BUILDING Engineer—Graduate civil engineer—age 39—over 20 years experience. Experienced handling large construction crews. Organized and supervised construction of up to 400 unit private home projects. Power plant construction. Expert estimator. Thorough knowledge of engineering construction, office and field management. Knowledge pipe design, plumbing, heating, sanitary, storm and sewage work. PW-235, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITIONS WANTED

MIDDLE AGE Executive type man desires position as shop superintendent of some wide awake fabricator of structural, plate or tank steel. Twenty-five years experience, best of references. Available on very short notice. PW-170, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

MASTER MECHANIC, mechanical supervisor or service manager, age 39, sixteen years experience supervising repair, operation, making appraisals and inspection of heavy equipment desires location in south or southwest; will accept job as field service engineer; now employed; available Jan. 1st. PW-171, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

JUNIOR STRUCTURAL Engineer: 1945 M.S. (Mich.) Now Research Fellow (Wash.) Desires part time or full time employment in Chicago. Available Feb. 10. Chihhwa Li, 1417 E. 42nd St., Seattle 5, Wash.

CIVIL ENGINEER, Cornell, young, married. Desires position as Structural Designer, New York City location preferred. Experience in design reinforced concrete and steel structures. PW-224, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION EXECUTIVE Engineer. Many years diversified experience in construction of all types. Take full responsibility of organization and operation of many large projects in his stride. Knows how to secure and expedite materials and get things done. Salary requirements $10,000 plus percentage of profits. With an eye to a partnership interest. PW-226, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SALES MANAGER or Branch Manager for Building or Metal Products, twenty years sales engineering and sales managerial experience with two leading companies. Now employed New York City desire change. PW-227, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION SUP'T. Engineering graduate, age 41, experienced on housing projects, air ports and heavy construction work in both field and office. Just returned from Columbus, Ohio. Seeks connection with contractor. Available at once. PW-228, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER—structural age 42. Registered Penn. and Delaware. Early experience subway construction. Recent experience mainly detailing and design of buildings with some bridges, piers and railroad layouts including four years overseas civilian design. Available immediately within Wilmington, Coatesville, Lancaster area. PW-229, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION ENGINEER over 25 years experience on subways, tunnels, bridges, cassions, shafts, grade eliminations, air fields, building roads, sewers, water works, grain elevators. Licensed professional engineer. Veteran, ex-Major, Corps of Engineers. PW-230, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION SUPERINTENDENT: Age 30. Familiar with all types heavy equipment. 10 years experience in Highway Engineering; concrete paving; bridge construction; grade and drain; highway surfacing. 2½ years Chief—Seabees, grading with heavy equipment, Pacific Theatre. References furnished. Will go anywhere Central or South America preferred. Salary to depend on location. PW-231, Engineering News-Record, 520 Michigan Ave., Chicago 11, Ill.

GENERAL CARPENTER Foreman Asst. Supt.—25 years experience specializing in all types concrete construction. Age 43. Available immediately. Location immaterial. PW-232, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

POSITION WANTED

CONSTRUCTION SALES EXECUTIVE

Wide experience and acquaintance in Central West with construction people, public officials, construction equipment and mill supply jobbers, experienced in engineering and petroleum laboratory and field practice. Now employed, present salary $6500 and expenses.

PW-304, Engineering News-Record
520 North Michigan Ave., Chicago 11, Ill.